COSTIN D. NENIȚESCU, OUTSTANDING PERSONALITY, WORLD-CLASS CHEMIST
HOMAGE ON THE 120TH ANNIVERSARY OF HIS BIRTHDAY

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Abstract. Professor Costin D. Nenițescu (1902-1970), one of the exceptional personalities of Romanian science, is part of the gallery of illustrious scientists, being one of the great architects of organic chemistry and the founder of the modern Romanian school of organic chemistry. As his merit's recognition, three organic compounds and three reactions bear the name "Nenițescu." He left for generations reference textbooks, the books of Organic Chemistry and General Chemistry, the Chemical Engineer's Manual, set up research centers and institutes, participated through technological research in the creation of the Romanian chemical industry. In his honor, an institute, medals, and awards received his name. It remains to be added the creation of a "Costin D. Nenițescu" Memorial House with a mini conference center. This compendium, collated from well-documented references, wants to be a solid argument in achieving this desideratum.

Keywords: Nenițescu, Magister, School of Organic Chemistry, Reference Textbooks, Memorial House, Conference Mini-Center

Introduction

Professor Costin D. Nenițescu (1902-1970), one of the exceptional personalities of Romanian science, is part of the gallery of illustrious scientists, being one of the great architects of organic chemistry [4] and the founder of the modern Romanian school of organic chemistry. Unanimously cherished by the greatest scholars of the world contemporary with him, he distinguished himself through original scientific contributions in fields that were waiting for clarification, through discoveries in the field of organic chemistry, three compounds and three reactions bearing the name of "Nenițescu". He left for generations reference textbooks, the books of Organic Chemistry and General Chemistry, the Chemical Engineer's Manual, set up research centers and institutes, participated through technological research in the creation of the Romanian chemical industry. In his memory, the Institute of Organic Chemistry bears his name, academic and professional organizations have instituted "Nenițescu" medals and awards. It remains to be added to these signs of recognition and appreciation in honor of the one who was the Magister of almost 40 generations of students, the creation of a "*Costin D. Nenițescu*" *Memorial House* with a mini conference center, which would bring together elite researchers from all over the world in the house where one of the greatest chemists of Romania lived and created. Well-documented references, all full of admiration and many of them full of emotion, were used to build a solid argument in achieving this desideratum.

Early life, childhood, and adolescence

Costin D. Nenițescu was born in Bucharest on July 2nd, 1902. He came from a distinguished Romanian family. His grandfather, Stefan Vasiliu Nenița, originating from Transylvania (Bârsei Country) was mayor of the Village Smulți near the city of Galați,

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his uncle, Ioan Nenițescu (1854-1901), an important personality from Romanian Dobruja, was licensed in law, writer and publicist, corresponding member of the Romanian Academy since 1896, author of the cycle of patriotic poems "Pui de lei", with lyrics that entered folklore. His father, Dimitrie Nenițescu (1865-1930), Doctor of Law (Belgium), a conservative, with wide views, was the author of the "Nenițescu law" (The Law of Crafts, Credit and Workers' Insurance, "the pride of his life" and the Law of Encouragement of the National Industry, both promoted in May 1912), during his mandate as Minister of Industry and Trade in the P. Carp government. His close friends wrote at the time that they have received from him "the most beautiful lessons of strong, sturdy and silent Romanism" (E. Bucuța, *Pietre de Vad*, Casa Școalelor, 1943, vol.3, p. 437) [4]. Professor Nenițescu's mother, Elena Nenițescu, was a discreet person, full of love for her children, proudly watching the successful career of her son "as a mother and a Romanian woman", as she writes in August 1956 [4].
From an early age, he lived in a warm family atmosphere, in a responsible parental discipline, with role models in his immediate family. He received a solid education, starting from primary school, attending, either private or public schools (Boys' School no. 9, Evangelical School and Gh. Lazar High School in Bucharest, where he attends the upper high school course). This education formed and made him shine through his special culture during his entire life. Art, music, history, literature was part of his universe.
In his teens he became an aficionado of the mountain, loving especially the Bucegi mountains. His house in Bușteni, that he enjoyed in the very last years of his life, was from where, in love with the beauty of the mountain, with the rocks, with the forests, with the alpine flowers, on July 28, 1970, he took his start in the flight to eternity!

University Studies

His teenager years also revealed to him a field that he decided to explore further and to which he remained forever connected, becoming a gifted experimenter, bold in ideas and practical approaches, *chemistry*. In a small laboratory improvised in the attic of the house, an experiment resulting in a fire, from which the little experimenter escaped with a partially burned suit, did not deter him, even if, severely punished by his father, he had to go to school with the burnt suit. Fascinated by a field that opened a new world, full of mysteries, Costin Nenițescu decided to go on this road, different from that of the notable personalities of his family. In 1920, at the age of 18, at still troubled times, he enrolled in the contest and is admitted to the Eidgenossische Technische School in Switzerland. Here he had the privilege of having first-rate teachers, such as Nobel Laureates, Peter Debye (1884-1966), distinguished in 1936 for his contribution to the knowledge of molecular structure and Herman Staudinger (1881-1965) distinguished in 1953 for his work in the field of covalent polymers. Also, here he acquired an exceptional expertise in analytical chemistry, expertise reflected in all his publications. Costin Nenițescu's admiration and appreciation for Professor Staudinger appears in several of his speeches (1962), comments or confessions, but one of them is significant for the philosophy of the scholar Nenițescu: "*from Staudinger I learned how useful it is to look at things from another point of view than your predecessors*".
Attracted by the research and the interesting works in the field of biological dyes in blood, leaves and bile, as well as by the fame of the professor Hans Fischer, chemist and physician, the young student moved, without hesitation, to the Technische Hochschule in Munich, where he finished in 1925, at only 23 years old, his university studies. At the same time, he also finished his doctorate, with maximum mention, with distinction, presenting the thesis "*Contributions to the synthesis of products of degradation of blood dye*." The carboxylic pyrrole acids synthesized by Costin Nenițescu and described in the three articles published from the content of the thesis will later constitute for Hans Fischer

"bricks" in the synthesis of hemine, which earned him the Nobel Prize in 1930. In Hans Fischer's laboratory, on his own, Nenițescu conducted a simple synthesis of the indole, by reducing the ortho-ω-dinitrostyrene. This method will be named after him, "*Nenițescu Synthesis of Indole*" remaining in the arsenal of the valuable methods of synthesis of indole, and forever bearing the name of its discoverer [13].
At the suggestion of his professor and scientific mentor, Hans Fischer, surprised by the simplicity of the idea and full of admiration for his student's work, he immediately published, the paper as a single author, the first on the list of publications of C. D. Nenițescu. Costin Nenițescu was one of the favorite students of Hans Fischer (1881-1945), who appreciated him and with whom he had permanent, active ties, until his death. Professor Costin. D. Nenițescu had to his teacher Hans Fischer a deep admiration and respect, keeping in his office at the Polytechnic Institute his picture, and in his home office the effigy of the homonymous society" [4, 6]. He expressed, on various occasions, his admiring gratitude to his teacher, saying "from Hans Fischer I learned something else: *how to ask the question in research, what you can research and what you should not research, where to start and where to stop*, I learned tenacity ... related to this research work and something else more important: *what it means, what is hidden behind these things*" or "From my teacher I learned not only science but also something that is not found in the books' lines. I have learned, among other things, *the duty to dare to approach a difficult problem, no matter how long it takes and no matter how much effort it requires*." These principles have been part of Professor Nenițescu's philosophy all his life, in addressing professional, research and didactic problems, have made him special in his generation, have led him on a path of undoubted success [4].

Professional Career

Faculty of Sciences. In 1925, with the diploma of doctor-engineer "with distinction", Costin Nenițescu begins a prodigious career, of 45 years, in the Romanian education and research. From the position of substitute assistant at the Laboratory of Organic Chemistry of the Faculty of Sciences in Bucharest, which he obtained on November 1, 1925, he became assistant "G" at the gas department affiliated to the Laboratory on March 15, 1926, and on December 1, 1926 he was promoted to provisional lecturer at the department of organic chemistry under the direction of professor Ștefan Minovici (1867-1935), one of the outstanding personalities of the era, along with the other two Minovici brothers. In the course of 1927, Professor Ștefan Minovici, during his periods of absence from the department, for health reasons or related to professional obligations, delegates Costin Nenițescu to replace him in support of the Organic Chemistry course. The absence of an Organic Chemistry course in Romanian attracted his attention and determined the young Nenițescu to decide, *ex cathedra*, to write a course for students. And so, "based on his personal notes he has made over the years" [6], appeared in 1928 the treatise *Elements of Organic Chemistry*, which generations of students used until the books on Organic Chemistry in two volumes were published under the name C. D. Nenițescu.
The performances of the young Costin Nenițescu were noticed and praised by his colleagues in the university system. Professor Dan Radulescu wrote to him verbatim "*Ethical and intellectual you have ace' fabric*" [4] and in October 1927 he invited him to move to Cluj, where he would have been offered better perspectives of professional development. Head of works[1] at that time, Costin Nenițescu, still refused the invitation, but his merits made him to be appointed by the Ministry of Public Instructions as Deputy Associate Professor of General Chemistry on October 1, 1928. He continued his

[1] Head of works, not known in universities abroad, is equivalent to the Romanian *sef de lucrari* teaching position

professional challenging work and wrote a laboratory guide, "Tables of practical papers", a lithographed course of "General Chemistry", and in April 1930, at the age of twenty-eight, he became, after the profile exam, a university docent in organic chemistry. On December 1, 1931, he was appointed, by royal decree, a definitive lecturer of general chemistry.
Between March 1930 and January 1934, appointed as Scientific Director of the Chemistry Laboratory of the Military Chemical Directorate, he led doctoral works of engineer officers (Ioan Chicoș, Grigore Vântu, Dumitru Curcăneanu, and others). He gave up this position to dedicate himself to the research activity, but from the funds of this activity benefited the organic chemistry laboratory at the Faculty of Sciences.
The balance of his 10-year activity at the Faculty of Sciences includes "40 original papers of which 20 published abroad, 1 treatise on organic chemistry, 1 book, 2 lithographed courses (in several editions), 6 doctorates and 10 doctoral papers in progress" [4] and yet, with all this track record, he failed to occupy the vacant post of professor of organic chemistry, put up for competition in 1935.

Politehnica, Polytechnic Institute of Bucharest On September 1, 1935, as a result of the competition for the vacancy at the department of "Organic Chemistry and its Applications", Costin Nenițescu was chosen to fill the position of replacement of the department of organic chemistry of the Polytechnic School "King Carol the 2nd", and on November 1, 1936, he was appointed by royal decree as a definitive professor at the same department. Simultaneously, he continued to fill the position of associate professor of general chemistry at the Faculty of Sciences, where he taught until 1937/38.
Research Laboratories At the Polytechnic School, he reorganized the organic chemistry laboratory, which, at the time, was small, in poor conditions. Over the years, Costin Nenițescu continued with determination and perseverance the expansion and endowment of the laboratory with equipment, chemicals, glassware, and a library, initially organized with journals and personal books, with up-to-date publications [1, 4, 6]. The library was in building A of the Polizu premises of the Faculty of Industrial Chemistry, but it was made available to those interested, when they requested access.
I remember that in the 60s, I personally benefited from this library, obtaining, upon request, the permission of the Professor Nenițescu for access. Together with a colleague from the ICECHIM-Dudești pilot platform, where I worked at the time, I prepared there the documentation for the synthesis of monopropylene glycol. This was a research project for a Romanian technology, requested by the Ministry of Chemical Industry, that I led, and which resulted in the commissioning of a performant industrial plant (95% yield) at the Râmnicu Vâlcea Chemical Plant, today Oltchim. The Romanian technology stood out through its simplicity and efficiency, eliminating the acid catalyst currently used in the industrial processes at that time, with a major unfavorable economic effect, due to the corrosion of the installations, requiring to be systematically renewed. The patented technology (1976) was awarded by the Romanian Academy with the Nicolae Teclu Prize (1978). (Today, at Oltchim, is in operation, at a capacity of 12,000 mt/year, the same industrial installation since commissioning, modernized for optimum steam consume in 2005).
The laboratory of the Department of Organic Chemistry at the Faculty, from the A and F buildings in Polizu, hosted for years, together with the researchers from the Chemistry Department at Politehnica, the researchers from the institutes and research centers as well. This happened because of the initiative and determination of the Professor Nenițescu to raise the Romanian research to its highest level and to offer the country well-trained specialists for the development of national chemical industry [1, 4]. Such research units, gradually, affiliated to the research team led by Costin Nenițescu were included in the Organic Chemistry Laboratories at the Politehnica as follows:

– In 1949, a Research Group led by Professor Nenițescu, then a corresponding member of the RPR Academy, was established under the aegis of the Department of Technical Sciences of the Romanian Academy, which became in 1955 the Department of Organic Chemistry of the Chemical Research Center of the RPR Academy in Bucharest, under the name of "Research Center for Organic Chemistry" (CCCO), and in 1968 "The Center for Organic Chemistry" (CCO), which moved to its new place on Splaiul Independentei. A new research center, with modern laboratories, comes into being through the tenacity and determination of the professor Nenițescu: a dream comes true. This institution receives in 1991, by the decision of the Romanian Academy, in a homage to professor Nenițescu, the name of the *Center of Organic Chemistry "C.D. Nenițescu*" [4], and from 2022, the name of *the Institute of Organic and Supramolecular Chemistry "C.D. Nenițescu"*.
– In 1947, the National Institute for Technological Research (INCT) of the Department of Chemical Industries, led by Costin Nenițescu, by his appointment by royal decree as Head of Section, expanded to become in 1948 the "Enterprises for Semi-industrial Research and Production" (ICEPS), and in 1950 the *Chemical Research Institute (ICECHIM)* by splitting and separating from the Institute of Chemical Design (IPROCHIM). ICECHIM remains under the leadership of Costin Nenițescu in the Laboratories of the Department of Organic Chemistry until 1954 [3, 4, 7], when it moved to its own premises on Splaiul Independentei, and in 1977 expanded, as a new modern place, with spacious laboratories, auxiliary workshops of glassware, mechanics, and others, conference rooms, library, administrative offices, along with a modernized Documentation Center.
These are two viable Research Institutes, important for the Romanian chemical research, created and developed by professor Costin C. D. Nenițescu.

Creator of the Romanian School of Modern Organic Chemistry

Areas of Research, Contributions

The research activity of Costin D. Nenițescu was conducted in the field of fundamental and applied organic chemistry [1-4, 6,7, 9,10, 14-18].
In the field of fundamental research, there are numerous subjects to which Costin Nenițescu made his exceptional contributions.
Notables are the syntheses in the series of indole and pyrrole. The "Nenițescu synthesis" of indole are still used today in the production of natural products such as tryptamine, serotonin, and indolyl-acetic acid. The first synthesis discovered is published by Costin Nenițescu, as a student, only 22 years old, and the second, on a different principle, three years later [1, 4, 6].
In his laboratory, Alexandru Balaban discovered during his PhD research a new synthesis of pyrylium salts (the replacement of a CH group in benzene ring by an oxygen atom). The results coauthored by A. Balaban and C.D. Nenițescu were simultaneously published with the paper of P.F.G. Praill, who independently found the same olefine diacylation, a reaction named “Balaban-Nenițescu-Praill".
Nenițescu also discovered new methods of synthesis of carbenes and a new method of polymerization of ethylene at low temperatures, under the action of organic sodium compounds, leading to the Romanian polyethylene AS. He did research on the Romanian oil, identifying a group of naphthenic acids.
Other research lines included the Friedel Crafts reactions, catalyzed by aluminium chloride and related reactions in the class of aliphatic hydrocarbons, where the Romanian school has made its mark: aliphatic acylations, alkanes reaction and cycloalkanes with carbon oxide, diacylation of alkenes to pyrylium salts, isomerization of aliphatic hydrocarbons under the action of aluminium chloride, isomerization of alkanes phenyl,

the mechanism of aromatic alkylation, the mechanism of the Scholl reaction, isomerization to the condensation of acids and unsaturated ketones with aromatic hydrocarbons, oxidation of hydrocarbons with chromic acid [1, 4, 13, 16].
The chemistry of reactions arising through carbonium ions and the problem of cyclobutadiene are two visionary topics in the field of Costin Nenițescu's research. At the invitation of Professor George Olah, (Nobel Laureate for "contribution to the chemistry of carbocation", 1994) he took part as editor of an international monograph in 5 volumes on carbonium ions, writing two chapters, the introductory one, "A Historical Perspective" and the one dedicated to intermolecular hydride migrations (*Historical Outlook*, 1968; *Intermolecular Hydride Transfer Reactions Involving Carbonium Ions*, 1970). Both monographs, appreciated by internationally renowned specialists, gave Nenițescu a special place in the field of carbonium ions [1, 4, 13].
The research on cyclobutadiene, benzo cyclobutadiene and valence isomers of annulenes represents a special chapter of research. This is because, Nenițescu, courageously and without reservations, tried to find a solution to an unanswered problem, the obtaining of the cyclobutadiene, an unstable, antiaromatic substance (which seemed unsolvable based on the mechanical quantum calculations of the '50s).
The results obtained by the Romanian school under his leadership bring clarifications: cyclobutadiene is formed from tetrabromcyclobutane but dimerizes rapidly; benzo-cyclodiene is transformed into dimers with different structures, that by reactions with diene produce complexes of cyclobutadiene and benzene Dewar. Cis-dichlorocyclobutena is obtained, which bears the name of "Nenițescu dichloride"; it synthesizes tricyclo-[4,2,2,02,5] decatriene, known today as "the Nenițescu hydrocarbon", the first annulene, (CH)10; one of the benzo-cyclobutadiene dimers obtained is called the "Nenițescu dimer" [1, 12, 13]. These discoveries open "a wide horizon in modern organic synthesis, for syntheses of molecules with unusual structures of regular polyhedrons, including some of those considered by the Platonian philosophy to represent the essence of things, such as the tetrahedron (tetrahedron = fire) or the cube (cube = earth)" [13]. The "Nenițescu hydrocarbon" has propelled the synthesis of annulenes, recently being synthesized Cuban derivatives, considered "energy compounds", which store unusual amounts of energy [13].
In the specialized literature is known a number of four Nenițescu compounds and four Nenițescu reactions [1, 4, 12, 13].

Contributions to the development of the Chemical Industry of Romania

Professor Fischer, suggested in a letter to Costin Nenițescu, with all regret, that he decided to remain to work in Romania and not in Germany, to continue to work in the field of chemistry, where he would achieve great successes, if he dedicated himself to the technical side [4].
Thus, Nenițescu, at the beginning of his career, campaigned for the creation of a Romanian chemical industry and for the encouragement of technological research [6].
In the difficult conditions of the mid 40s and early 50s, when the country was facing a systemic lack of chemotherapeutic drugs, although medicine had made important progress during this period, this was the first field on which Professor Nenițescu leaned with his research team. The first drug studied in the laboratories of the Politehnica, sulfathiazole, was immediately produced in a small industrial plant, which in the years of 1967-1970, when I was working on the ICECHIM-Dudești platform, still functioned at full capacity, although the equipment, the same from the beginning, now outdated, required a permanent maintenance.
Then followed the syntheses of antituberculosis, antimalarial drugs, which helped to eradicate malaria in Romania, cytostatics, and others [1 4, 6].

Under his leadership, technological processes for insecticides, dyes, vinyl monomers for plastics, auxiliaries, were developed at ICECHIM.
The cooperation between fundamental and applied research led to the obtaining of new, original products, such as the Romanian polyethylene [1 4, 6].
Costin Nenițescu's remarkable technical and scientific activity represented an important support for the development of the chemical industry in our country, remaining in the history of Romanian chemistry as one of the scientists with special achievements in the field of chemical technology.

Nenițescu's Organic Chemistry School began to be formed from the tables of the first enthusiastically assembled small laboratory at the Faculty of Sciences, in the new building on Splai, in 1928 [1], with students passionate about chemistry and hypnotized by Herr Director, as the collaborators respectfully called him. It was formed with the PhD students and doctors who defended their doctoral thesis under his leadership and continued with the PhD students who followed him at Politehnica and became his close collaborators. Elites were selected from the students of various promotions, who also became his close collaborators, ending up with the almost 40 series of students he taught, as he liked to say, when he confessed how much he loved his professorship [4]. The students became professionals who created the Romanian chemical industry or who, wherever they worked in the world, were a mirror of the Romanian school of organic chemistry. Costin Nenițescu, together with those who were part of his research teams, of his school of organic chemistry, achieved important successes, acclaimed by the international scientific community, successes that were his own and of those of the Romanian school of organic chemistry that he had created [1, 4, 13].

Society of Chemistry

The "Society of Chemistry in Romania", founded in 1919, had a well-known journal "Bulletin of the Society of Chemistry in Romania" whose editor, Costin Nenițescu, was appointed in 1932, when the President of the Society was the Professor Ștefan Minovici, head of the Department of Organic Chemistry of the Faculty of Sciences. Nenițescu actively participated in the life of the society by publishing original papers, by presenting at the monthly meetings the results obtained. For example, he talked about the synthesis of hemine in 1929, on bivalent free radicals or through speeches, sometimes his interventions were incisive, but well argued. He also participated with papers at the National Conferences [4].
After moving to Politehnica, he continued his collaboration with the Society of Chemistry, remaining the editor of the Society's Bulletin. In 1937 he was part of the Society's Council, he presented current papers, both at the meetings of the society and at the National Congresses, at the 5th National Congress of Chemistry (1936), supporting the plenary conference on the subject "The Origin of Oil" [4, 5].

Romanian Academy

Costin Nenițescu became a member of the Academy in 1945, on May 24, as a corresponding member through the recommendation of Acad. Prof Gh. Spacu, who highlighted the original research lines approached by Costin Nenițescu in at least 63 published papers: a) reactions catalyzed by aluminium chloride; b) research on aci-nitro derivatives; c) works in the series of heterocyclic compounds; d) works in the field of oil; e) works in other fields (combat gases, reaction mechanisms). He was reconfirmed on November 2, 1948, as a corresponding member of the Section of Technical and Agricultural Sciences [4].

In the meeting of June 27 to July 2, 1955, he was elected a full member and president of the Chemical Sciences Department (1955-1970) of the Romanian Academy, becoming a member of the Presidium of the Academy [4, 16].
He headed the Academy's first research units until 1970.
He had an intense editorial activity related to the Academy's publications. Since 1956 he was in the editorial staff of the *Revue de Chimie*, *Acad. RPR*, having Prof. Gh. Spacu as editor. In 1964 the journal changed its title to *Revue Romaine de Chimie*, and Nenițescu became its editor.
At the Journal of *Chemistry Studies and Research* published in 1953, he was part of the editorial committee, and after 10 years he became its editor.
He was part of the editorial committee of the *Journal of Organometallic Chemistry* (1963) at the proposal of E.O. Fisher, later Nobel Laureate. [4]

Publications

The impressive record of scientific and didactic publications of Costin Nenițescu includes [1, 4]:
– 262 original articles and 21 patents with 1000 citations in 1970 and then, annually, around 20 citations.
– Treatises of Organic Chemistry: *Elements of Organic Chemistry* (1928) and *Elementary Treatise of Organic Chemistry* in 2 volumes (3 editions revised, 1942-1943, 1946-1947, 1956 &1958) both precursors of the 2 organic chemistry treatises in 2 volumes (4 revised editions 1960-1963, 1966-1968, 1967-1969, 1974), both volumes translated into Russian (1962-1963) and Polish (1967-1969).
– Treatises and textbooks of General *Chemistry: General Chemistry* (lithographed course, 3 editions, 1928-1935); *Tables of practical works* (4 editions, 1928-1933)
– Technical Books: *Chemical Engineer's Manual* and *Physico-Chemical and Technical Tables* in 2 volumes (1951, 1952), *Organic Chemistry Nomenclature* (1960), *Polyglot Dictionary of Industry and Technology* (1968), *War Gases and Masks* (1933)
– Textbooks for high school (class IX-XII, 1967-1969).

Costin Nenițescu realized the imperative necessity of some modern manuals for teaching chemistry in Romanian. And this is how it was born, as I mentioned before, at the beginning of his teaching career, the first textbook of modern organic chemistry in Romanian, *Elements of Organic Chemistry* (1928), which he successively enriched and updated in the two volumes of Organic Chemistry [1, 4, 5], the last edition being revised and added in 1974 by Acad. Prof. Ecaterina Ciorănescu-Nenițescu, his wife and collaborator, together with Dr. Mihai Elian, a close collaborator. These books have represented reference books for generations of students and professionals and continue to be so. So does *General Chemistry*. Upon the sudden disappearance of the Magister, the pencil remained between the pages of the General Chemistry textbook, he was reviewing. For me, as for so many others, these books were in the profession like a Bible and accompanied me from the period of trainee engineer and researcher on the ICECHIM-Dudești pilot platform, until today, overseas. After long evenings in the libraries of Berkeley or Stanford, looking for different details for the research projects I was working on, I would return to Nenițescu's Organic or General Chemistry and, without exception, I would find, clearly, sometimes with surprise, what I was looking for. The simplicity and logic of the organization of the material, the clarity of the exposure, the cross-references, the ease of navigation, all the qualities of a quasi-perennial book, make these books invaluable at least for a few more generations. Likewise, the *Chemical Engineer's Manual*, an exceptional book, a small treasure trove, an effective help, for both, researchers and engineers, from which one can learn and do the job, without paying

consultancy. At the Library on the ICECHIM-Dudești pilot platform, where about 40 technologies were piloted per year, there were at least 20-30 copies and you could benefit from one *sine die* in your office, renewing the loan on time. The volumes are now exhausted, the internet can give you a lot of useful information, as well as "Perry's chemical engineering handbook" or others; and yet, not only sentimental, but I would also have liked to have them in my library, on the shelf, as they are still useful. At my first return to the country in 1997, I made a visit to the Library of ICECHIM-Dudești, then belonging to the Bucharest Drugs Plant. The books were in place, but with no more research activity on the platform, no one consulted them anymore, the librarian told me; with all the regret, I was not able to buy a set... they were not for sale!

Organic Chemistry Course

The Course of Organic Chemistry for the students of 2nd and 3rd years series of the Faculty of Industrial Chemistry of Politehnica was given by the Professor C. D. Nenițescu in the A040 amphitheater, today APA. The atmosphere was solemn. Through the door, always open, the Magister entered, without exception, exactly at 12:00 pm, after all his impressive cortege of assistants, heads of works, lecturers, all in white robes, occupied their seats in the benches reserved in the first two rows of the middle section of the amphitheater. Many of them, took notes, together with us, the students. The first, however, was nea Pandele, the lab assistant who prepared the board, the chalks and who knew exactly when to jump to wipe the board with the sponge, apparently without any sign from the professor. But the legend had it that, in fact, there was a tacit agreement with the Magister, and the signal was that he exceeded the red band of the venetian mosaic between the board and the chair. Nea Pandele, also in a white lab coat, sat on a high wooden laboratory chair at the front door, which he seemed to be guarding, although no one would have dared to stop it, open it, after nea Pandele closed it. The other lab assistant, iso-Pandele, was less visible in the classroom, but both were appreciated for their assistance with special laboratory work, such as the work with pressure autoclaves, etc. When the Magister began to speak, there was a grave silence in the room, only his strong voice being heard, with its specific, unforgettable intonations. The blackboard was covered by a variety of structures and reactions that the professor clearly explained in detail. That was until the exam, when, with his proverbial austerity, he promoted only about 30% in the first session, in the summer, without anyone ever feeling aggrieved by the rating. The written exam was held in the A040 amphitheater in the presence of the assistants, and the oral exam took place in the Library, with the Magister. The 2nd year Organic Chemistry exam was very difficult, but no one ever questioned the Magister's grading. (From my series and those close to me, I only heard words commendable for the Magister, no matter how that student was graded in the exam and probably the situation was no different for any of the other almost 40 student promotions).
The Magister was preparing his lectures, as the legend says, working in his office, starting at 6:00 in the morning on the day of the course, Tuesdays at 12:00 pm for 2nd year. They were art and science, science and oratorical art to impeccably intertwine, ideas with simple or complicated structures.
During the classes, there were also illustrative experiments, which were prepared and performed by one of his assistants. The Magister was extremely demanding about this practical digression from his theoretical presentation and did not allow any failure.
Out of deep respect, over the years, our series of graduates, the 1967 series, perhaps like many other series, is found, at all the jubilee anniversaries, without exception, in the A040 amphitheater (more recently called APA), from the building A, Polizu Street no.1, named, as an homage, since 1973, amphitheater "C.D. Nenițescu". Here, on the wall, on the right side of the board and behind the chair from where he once lectured, is the bas-relief of

C.D. Nenițescu (1902-1970), Professor of Organic Chemistry, under which is inscribed his creed " *To succeed in transmitting science, you must be yourself a creator of science or at least strive to be*."

Homage and Academic Titles, Awards

The personality of Professor C. D. Nenițescu, due to his scientific prestige and erudition, was imposing. His election as a member of the Romanian Academy in 1945 as a corresponding member and since 1955 as a full member, as well as of many other academies of science abroad, "Leopoldina" Academy in Halle (GDR, 1963), Academies of Sciences in Berlin (GDR, 1964), Munich (GFR, 1965), Leipzig (GDR, 1966), Moscow (USSR, 1966), Warsaw (Poland, 1967), Budapest (Hungary, 1970), as well as the awarding in 1970 by the German Chemical Society of the medal "August Wilhelm von Hoffman", one of the most prestigious scientific distinctions in the world, are a corollary of the outstanding achievements of Costin D. Nenițescu [1, 4].
As his close collaborators say, and as many world-class scientists have remarked, many of them Nobel Laureates, starting with his professor and mentor Hans Fischer, Costin Nenițescu, had that special ferment to go beyond the borders of his forefathers and create something new, "he had an independent, original thinking, a non-conformist spirit, he was an assiduous seeker of the still untamed paths", this revealing himself, with all the naivety of his teenage age, still in one of his literary attempts, a historical novella written in 1918, in which he says that he "will treat this subject from another point of view than Plutarch in his *Lives of illustrious men*" [13], but also later, in adulthood, when with admiration he publicly declared that "*from Staudinger I learned how useful it is to look at things from a different point of view than your predecessors*" [1, 4].
The thoroughness and the perseverance with which Costin Nenițescu carried out the works, the objectives set, came from his father, about whom it was said that "You felt in him the man of facts. Whatever job he started he did well and asked everyone for the same zeal and determination", but also from his professor Hans Fischer about whom Nenițescu said "I learned tenacity ... related to this research work" and "I learned among other things *the duty to dare to approach a difficult problem, no matter how long it takes and no matter how much effort it would require*".
Nenițescu's intuition for the most important directions of development of the chemistry is remarkable [1, 4, 13].
The respect and gratitude he bore to those who enriched him professionally and spiritually were part of his conduct, making him a role model for generations. "The bronze effigy of Professor Hans Fischer, the man who influenced him the most after his father, was placed on professor Nenițescu's worktable, as a parable and an impulse", notes Academician Professor Ecaterina Cioranescu-Nenițescu, his collaborator and wife, in "*Costin D. Nenițescu, a master of our times*" [6], a reception speech from 1974, unspoken and published only in 1991. [4]
The professional and human profile of Costin Nenițescu, the greatest Romanian chemist of international stature, brought him the appreciation of those with whom he worked, collaborated or interacted over the time. Professor Nenițescu was a talented and inspired researcher, but also an unsurpassed teacher, who loved his teaching, as he called it, saying that *everyone does what he knows best*. He was a moral landmark in difficult times [9], and a man of courage [1, 4, 9, 13].
At the Faculty of Sciences, his training, which clearly differentiated him from the other assistants and at the same time imposed him, earned him the appellation of **Herr Direktor** used by his students and collaborators with him, as it is evocated in 1962 by Dumitru Isăcescu, one of his first PhD students, later professor at the Faculty of Chemistry from the University of Bucharest. In his touching homage paid to Professor Nenițescu at his

60th anniversary he said "We work together with you, from 7 am to 9 pm, to 10 pm. This is how the most beautiful school of friendship, of respect for work, of love for science was created... I respected you, I admired you, I loved you."
At the Politehnica, in a few years, Costin Nenițescu became a prestigious figure and the collaborators, the students and the teachers reverently calling him **Magister**. This remained the appellation on his life and after, until today, when it is spoken of the Academician, Professor, Doctor Docent, Doctor-Engineer Costin D. Nenițescu.
This reverence and deep respect were commonplace, but impressive at the same time, they were a custom for those who interacted with the professor. I remember the Magister's attendance of the First National Congress of Macromolecular Chemistry with international participation, Iasi, 1968, organized by Professor Cristofor Simionescu. For me, it was a special Congress, starting with the morning session where the Magister was present and ending with the Welcome Reception in the new student canteen, then it seemed just inaugurated, where at the entrance, we were greeted by Professor Cristofor Simionescu in an elegant outfit and his wife in a gorgeous green taffeta dress. The Magister arrived by plane from Bucharest, punctually, for the morning session and had occupied his place in the first row of the amphitheater, which he resumed after the presentation of his work and remained quiet there at the break. Colleagues of the guild, some even quite close collaborators, respectfully descended from their places in the amphitheater, passed in front of the Magister only to greet him, without stopping, if they were not questioned. The magister went back to Bucharest after the morning session. With all that comet appearance, his presence made that day unforgettable…
The Magister's aura, undoubtedly, extended to his close collaborators, who were regarded with consideration, were respected and appreciated, because they were from the School of Organic Chemistry of Professor Costin Nenițescu. And that mattered!
He was granted with numerous awards and decorations for his scientific, didactic, technological and organizational activity: State Prize First Class, 1949 and 1951; Order of Labor Class II, 1957; Steaua RPR Class I-a, 1962; Man of Science Emeritus, 1964; Scientific Merit First Class, 1966; "Hanus" Medal awarded by the Czechoslovak Society of Sciences, 1967; Gold Medal, "A.W. Hoffmann" awarded by the German Science Society, a high distinction, 1970; Deputy of the Great National Assembly after 1962, when he agreed to become a party member [1, 4].
He received national and international honors: the international chemistry designated with the name Nenițescu a) some reactions: two Nenițescu syntheses in the indole series, the reaction of reductive acylation of the alkenes and the migration of the Bartelett-Nenițescu-Schmerling hydride ions, b) some chemical compounds: Nenițescu acid, Nenițescu hydrocarbon, Nenițescu dimer of benzocylobutadiene, Nenițescu dichloride; in 1962, on his 60th birthday, he was dedicated a tribute number of *Revue de Chimie Acad, RPR, 7, no.2 (1962)*; on the July 18, 1962, his 60th anniversary was celebrated by the Romanian Academy at the House of Scientists in Bucharest, where personalities of the time from the Romanian Academy, the President of the Academy, Acad. Athanasie Joja, the Minister of Education, Acad. Ilie Murgulescu, Acad. Traian Savulescu, give speeches; he was nominated as Associate Professor "Max Tishler" at Harvard University, the most prestigious title given to a foreign lecturer (1968); the book "*Friedel Crafts Alkylation Chemistry*" (Ed. Dekker, 1964) is dedicated by authors, R.M. Roberts and A.A. Khalaf, to professors Costin Nenițescu and Ecaterina Cioranescu-Nenițescu [4].

Costin Nenițescu, outstanding personality of the chemistry of the world

Participation in international scientific events and visits to European universities

If between 1925-1955 Costin Nenițescu did not leave the country except in a short tourist visit to Italy in 1927, starting with 1955, when he became a full member and president of the Chemical Sciences Department (1955-1970) of the Romanian Academy, his roads were opened for a wide participation to international scientific events, where he has the opportunity to interact with famous scholars and put the school of organic chemistry of Romania on the map of the international chemistry through his contributions of a high scientific value [4]:

– Poland, 1955: study trip and exchange of experience to Warsaw, Krakow, Poznan and Gdansk, during which he presented scientific conferences, met scientists, academician Wojchiech Swietoslavski, "veteran of Polish chemistry", the great specialist in ebullioscopy and Professor Tadeusz Urbanski head of the Department of Organic Chemistry, both from Warsaw University.

– Hungary, 1955: Congress of Hungarian Chemists in Budapest, where he presented a paper on alkylation reactions of aromatic rings in acid catalysis. Georg Witting, George Olah and other great chemists were present; 1958: participated in another Congress in Budapest; in 1962 he was a guest of the Hungarian Academy.

– Soviet Union, 1956: visit to Moscow and Petersburg, where he met and discussed with N.N. Semenov, Nobel Laureate (1956) and other specialists, met Sir Christopher Ingold with whom he discussed and then corresponded on topics of cyclobutadiene and aromatic alkylation. 1959: 8th Congress D.I. Mendeleev (Moscow), meetings with Professor Saul Winstein (USA) and with Dr. A. Morf, president of IUPAC; 1961: Visit to Moscow and Leningrad, participation in Butlerov symposium with the talk "New results in cyclobutadiene chemistry", meetings with host academicians Nesmeianov and Reutov and Professor J.D. Roberts (USA) with whom he had discussions on cyclobutadiene.

– R.D. German, 1956: discussions with professors W. Treibs (Leipzig), H. Beyer and Otto Neunhoffer (Greifswald); 1964: Congress of the Chemical Society in Leipzig, guest of the Leopoldina Academy in Halle (member since 1963) and of the Deutsche Akademie der Wissenschaften in Berlin, where he became, with this occasion, a member.

– France, 1957: attended the XVI IUPAC Congress in Paris with the work "The reaction of carbon oxide with saturated hydrocarbons in the presence of aluminium chloride”; 1960: International Congress of Catalysis, Paris.

– Greece, 1957: participated in the XXX International Congress of Chemistry in Athens together with the m.c. of the Academy, Professor Cristofor Simionescu and Professor Iosif Drimuş.

– Switzerland, West Germany, Austria, 1961: presented, with great emotion, the conference "The Problem of Cyclobutadiene" in the amphitheater where 40 years ago he heard the courses of the University of ETH Zurich; he was received by the great scientists, the Nobel Laureates, L. Ruzicka and Vladimir Prelog and met with professors H. Zollinger, O. Jeger and A Dreiding; at Heidelberg he visited University and the "Max Planck" Institute, met with great professors, Wittig and others; he visited BASF, which offered him, free of charge, cyclooctatetraene in the quantities necessary for research in the field of cyclobutadiene; in Karlsruhe he was the guest of Professor Rudolf Criegee with whom he would have a beautiful collaboration, as both of them worked in the field of cyclobutadiene; visit at Freiburg University with Professor Lutringhaus, specialist in stereochemistry, in Munich with Prof. Rolf Huisigen and E.O. Fischer, a future Nobel Laureate; attended a meeting with former colleagues from TH-Munich at the *Hans Fischer Society*; at the Vienna Polytechnic he visited Prof. H. Novotny, head of the department of physical chemistry. The conclusions of Professor C. D. Nenițescu following this European journey: a) the importance of contacts with scientific personalities; b) Cyclobutadiene is a "hot theme; c) the importance of physical methods in organic chemistry.

– France, 1962: International Colloquium of Organo-Metal Compounds, Paris

– Ireland, 1964: The symposium dedicated to the Chemistry of Carbocations at Crock, where he presented the paper "Reversible molecular transpositions through carbonium ions", followed by sustained discussions with Saul Winstein (UCLA, USA), Rolf Huisigen (GFR), and others.
– GFR, 1966: Conference "Reactions of elimination of halogens and halogenated acids from 2-halogenated compounds". Meetings of German Chemists, including professors Rolf Huisigen, E.O. Fischer and others.
– France, 1967: Congress of the Chemical Society of France, Nantes, where he presented the paper "The Mechanism of the Etard Reaction".
– Belgium, 1967: Conference dedicated to the small cycles at Louvain.

Visits and conferences of personalities in organic chemistry at the Laboratories in Bucharest

Since 1956, the Laboratories in Bucharest were visited by leading specialists, who have lectured on various topics: *1956*, Prof. Georg Witting (Heidelberg), became a friend of the organic chemistry team, an admirer of the Bucegi Mountains and a donor of hard-to-reach reagents; he returned to Romania in 1966 at the National Chemistry Conference in Timișoara and supported the plenary "Complex as *an* intermediary and determinants for directing reactions". In 1976 he became a Nobel Laureate; 1957, visit of a group of Soviet professors, M.I. Kabacinik, V.N. Kondratiev; 1958, Gabor Fodor (Budapest), Tadeusz Urbansky (Warsaw); 1960, Prof. Alan Katrizky Cambridge (UK), first visit; 1960-*1965* & *1965-1970*, a Pleiades of scientists visited the research group of Professor Costin Nenițescu [1, 4].

The American Journey, 1968

At the invitation of Harvard College (Cambridge, Massachusetts) and of some high-profile professors from first-rate universities, Professor Costin D. Nenițescu and his wife, Professor Ecaterina Ciorănescu-Nenițescu, visited the United States in 1968. The program was organized by the American hosts together with Dr. Ludmila Bârlădeanu and Dr. Mateescu, former collaborators of the Professor Costin Nenițescu, settled in the USA, who accompanied them throughout this American journey [1, 3, 4, 5].
The invitation signed by Professor Elias J Corey (Nobel Laureate in 1990) announced Professor Costin Nenițescu on his nomination by the Department of Chemistry of Harvard University (Cambridge, Massachusetts) as associate professor "Max Tishler" for 1967/1968, the most prestigious title given to a foreign lecturer. Introduced by two Nobel Laureates, Professors Konrad Bloch for Medicine and Physiology and Robert Burns Woodward for Chemistry, Professor Costin Nenițescu presented the conference "Some problems of cyclobutadiene", highly appreciated and with echoes over time. Next, Professor Nenițescu met Max Tishler, president of Merck, Sharp and Dome's laboratories. The private visit at the residence of professor W.v.E. Doering, extremely pleasant, left beautiful memories to Professor Nenițescu.
Numerous visits to other universities followed, invited by some professors, whom he had met and with whom he had discussions on this American journey: to Princeton with Professor P.v.R. Schleyer, to the University of Columbia, New York, with Ronald Breslow and Gilbert Stork, to the University of Notre Dame, Indiana, with Ernest Eliel and Frederick Rossini, and at Washington University with Professor Nicolae Filipescu, his former student, at the University of California, Los Angeles (UCLA) with Saul Winstein and Donald Cram (Nobel Laureate, 1987), and at the University of Cleveland Ohio with Professor George Olah (Nobel Laureate, 1996) in whose collective worked then Dr. Gh. D. Mateescu.

At Cleveland Ohio, the first conference on carbonium ions took place, and in the audience was Professor Royston Roberts, who came specially from Texas to meet Nenițescu personally, who here held the conference "Carbonium ions, intermediaries and dibenzocycloheptenes and dibenzocyclooctanes transpositions".
In addition to the official visits and meetings, whose level showed great respect and international recognition for Nenițescu, as being part of the gallery of the world's greatest chemists, private meetings took place, in a warm and friendly atmosphere in the families of many of the scholars he met and beautiful trips to special places, some American landmarks, which completed the charm of this North American journey, leaving great memories to both, guests and hosts.

Pine Inn Hotel, Carmel, California where Magister stayed in 1968 and his disciples and former students visited *In Memoriam* in 2013

And now, a personal memory, the meeting with Professor Gh. D. Mateescu in one of the days of the annual ENC Conference in the field of MRI, at Asilomar in 2013. This was related to the coming to California of Professor Sorin Roșca, one of the disciples of Magister, then the President of the Society of Chemistry in Romania (2000-2021), at the invitation of the American Chemical Society (ACS) President, Dr. Marinda Wu, to the 2013 ACS Congress in New Orleans and to the joint meeting of the Northern California American Chemical Society and Electrochemical Society held at the University of California at Berkeley. The ACS President visited the Chemical Society in Romania on the establishment and inauguration of the American Chemical Society Romanian Chapter, for which I had the initiative and collaborated close with Dr. Marinda Wu, whose support and dedication were essential. At Asilomar, we met with participants of the prestigious NMR elite, Richard Ernest, Nobel Laureate, top specialists of the Varian, of the Cleveland Ohio University, other. Some of them had visited Romania attending several NMR workshops organized by Prof. Gh. D. Mateescu and met with Prof. Sorin Roșca. Prof. Gh. D. Mateescu, enthusiastically insisted in that afternoon to follow in our footsteps the Magister' 1968 visit on the gorgeous road to Carmel, on the famous Pacific coast of the Monterey. In Carmel we went into the hotel where Magister stayed, a hotel today as elegant as then, predominantly in red cardinal, as you can see in the image. We can assume that it was selected carefully, with high regard for the Magister. Waves of memories flooded discussions since then, from Asilomar, from Carmel, from San Francisco. Magister meant very much for all those who have known him, closer or farther away, all those who have been his students. He continues to be present, with his imposing stature, with his sober and sever air, with his scientific and technological achievements, with his textbooks of Organic Chemistry and General Chemistry, with the Chemical Engineer's Manual, but also with his solid patriotism, demonstrated over the years, putting on the world map the Romanian research in the field of organic chemistry.
The personality of the Magister shone throughout this American journey, scientifically impressed all those who, immediately or later, paid homage to his presentations, sending letters of appreciation that remained archived; in addition, he created lasting ties with some of the scholars he met in the USA and who came to Romania at the Laboratories in Bucharest, established collaboration relations, came or returned impressed by the collaboration quality and equally by the beauty of Romania, attracted by our mountains, by our lands. But also, for Magister, this journey was a highlight of his scientific career, as he himself confessed in a letter to Lili Bârlădeanu: "all this trip to the USA was an

extraordinary adventure and I feel it as a consecration of the efforts of a whole life work and maybe some ideas that I managed to realize" [1].

The Memorial House and the Mini Conference Center "C.D. Nenițescu": a proposal for the future

Costin D. Nenițescu
(1902-1970)
Bellu Cemetery

Costin Nenițescu left us on July 28, 1970. "The country has lost a scholar, more than a scholar, an invincible humanistic spirit" [4]. He is buried at Bellu cemetery [8], where he rests among the immortals of the nation.

The Magister's house, where he lived and created, survives still on the Școalei street at no 8. Originally it was on the Școalei street at nr. 4., as recorded in the Authorization of Construction obtained on April 28, 1908, by his father, Dumitru Nenițescu, former Director of the National Bank and of the Ministry of Industry and Trade. In 1930, after her husband's death, his mother moved nearby, in a property on the Rosetti street and in this house remained, in two quasi-identical apartments, the two brothers, Costin Nenițescu on the ground floor and his sister Ioana, who became Toderini after marriage, upstairs.

The building, of irregular shape, composed of ground floor, first floor and attic has behind it a secondary building with two floors, each with 4 rooms and a beautiful garden guarded by high wrought iron gates on the façade. "The roof is the original one, carefully crafted, it has skylights, richly ornamented, placed above the upstairs windows. The high ground floor, worked in bossage, with decorative buttresses, gives the impression of massiveness. Decorations, such as traditional-inspired girdles, are placed under the cornice, above the windows. Geometric ornamental cut into the plaster form a real sculpture. The ceilings with windowsills decorated with triangular motifs quite like those on the outside of the building, partly the recessed furniture, the Ruffer tile stoves and the original carpentry of the door and window frames, of the beveled crystal door leaves that slide and revert are still preserved. The Nenițescu House is distinguished by proportions, volumetric composition and by the configuration of the interior space, being a coherent and clear creation of the neo-Romanian style" [11, 19].

Costin Nenitescu in his office in 1953

Here, in this beautiful house, Costin Nenițescu spent his childhood between a father „fighter, streak, sober, a man of a chosen culture and a sensitive mother, with artistic inclinations" [1], here he built the makeshift little lab, here he did a part of his studies in private classes, here he wrote part of the Reference Books, here he received at makeshift tables or even festive his collaborators, of which some remembered with nostalgia the Ecaterina Ciorănescu-Nenițescu's orange cake. And here he received at dinner his guests, „discussing with passion subjects from history, literature or art", impressing by competence and culture. "Excellent host, he knew to listen, but also to tell stories". He knew classics and modern literature; Civilization Sumerian, like that of the ancient Egyptians and especially the Cretan-Greek vast civilization, being as familiar to him as Romania's history detached from the tabs of the chronicles. He recited the poets' lyrics, admired impressionists, listened to the music

of Bach, Mozart and Schubert, sang himself with a pleasant, baritone voice folk Romanian, German or French songs. He was a man of a vast culture. [1, 4, 6]
The warm and welcoming ambience of the so pleasant visits to his house, with interesting conversations, were enjoyed and remembered by many of the great chemists of the world, who visited in Bucharest the laboratories of Professor Nenițescu.
Just as pleasant and famous could become seminars or mini conferences that would take place in the *Memorial House and the Mini-Conference Center "C.D. Nenițescu"*, where the presence of a great Romanian scientist remains alive over generations, and "his work will continue to guide future generations" [4].
The Nenițescu House, with an area of 536.03 m2, 14 rooms and outbuildings, two interior stairs, a terrace of 16 m2, garage and 4 cellars was sold shortly after the death in 2000 of his wife, Acad. Prof. Ecaterina Ciorănescu-Nenițescu. In February 2008, notified by the inhabitants of the area, good hearted people, the Artrad Association made a request to classify the building as a matter of urgency as a heritage object [19], which gives us hope that one day, this house with cultural identity [11], through its occupants, can be rehabilitated as a Memorial House.

What could *The Memorial House and the Conference Mini-Center "Costin D. Nenițescu"* look like?

On the ground floor the Memorial House, and upstairs the Conference Mini-Center. In the buildings attached, a mini hotel with a small restaurant for visitors from the country or abroad, participants to the scientific events, scheduled by the Research Centers of the Academy and the universities in the field, in the capital or in the country. In front of the secondary bodies, a terrace with garden, annex of the inside mini-restaurant.
In parallel, efforts would be needed to recover the original furniture and the Nenițescu' adequate archive for the Memorial House.
Acquiring the house and its entry, preferentially, in the patrimony of the Romanian Academy with detailed reconstruction from European funds, would allow such an illusion to become a reality. Presumption of the motto *Give a cent for the Athenaeum*, which brought us into the patrimony of culture this beautiful building of the Athenaeum, could motivate the Pleiad of students, the former, today professionals and maybe also the new ones, who studied his books, tomorrow and they professionals, to commit to the construction of national history, keeping alive the memory of the one who was Costin D. Nenițescu, the creator of the modern Romanian school of organic chemistry?
With the will and dedication from all of us, academic forums, chemistry and chemical engineering societies, Nenițescu Foundation, chemical companies operating with profit, former students, today class professionals and future students, professionals of tomorrow, yes, the *Memorial House and the Conference Mini-Center "Costin D. Nenițescu"* could become a reality!!!
Professor Costin D. Nenițescu, teacher, school creator and elite researcher, remains, "especially through the radiated influence as a center for cultivating intelligence, ... *for the cultivation of intelligence is one of the few hopes for the salvation of mankind"* [2][4]. *"When, like him, will another come?"*[3] [4] rhetorical question, what remains, over the years, today, for all of us and tomorrow for those who will come...

Let's respect our values, let's bow before them by offering them a future!!!

[2] Academician Professor Emilian Bratu, commemorative anniversary speech at the 80 years posthumously anniversary of Professor Nenițescu
[3] Academician Professor Emilian Bratu, another great teacher of the Romanian school of chemical engineering, was rhetorically asking (Shakespeare) at the 1983 commemoration of Costin Nenițescu

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