In memoriam Prof. Emeritus Dr Joseph A. Sherma, Jr. (1934–2021)

It is with great sorrow that we have to report the death of Professor Emeritus Dr Joe Sherma (Chemistry Department, Lafayette College, Easton, PA, USA), who passed away in August 2021. Never had the chromatographic community from this side of Atlantic a privilege to meet Joe face to face, either privately or at any professional come-together so that none of us has personal recollections from any such occasion. Surprisingly enough, Joe has been very well known to several generations of those involved in separation sciences around the globe as an iconic figure, great inspirer and simultaneously our intimate friend, easily establishing professional ties with chromatographers in Europe and also worldwide, and especially with those researching in his favourite field of thin-layer chromatography (TLC).

His first major initiative in a capacity of the TLC promoting editor probably was publication (in collaboration with his personal friend and faculty colleague from the Lafayette College, the late Professor Bernard (Bernie) Fried) of the voluminous *Handbook of Thin-Layer Chromatography* (1st and 2nd Edition published by Marcel Dekker in 1991 and 1996, respectively, and 3rd Edition published by CRC Press in 2003). In this handbook twice updated in a few-years intervals, he brought together over 40 internationally acclaimed authorities on thin-layer chromatography, who offered a systematic approach to the latest thin-layer chromatographic techniques, instrumentation and documentation of analytical results, and to practical applications of various different thin-layer chromatography modes.

Among various different issues related to thin-layer chromatography and for human reasons particularly important to Joe, elaboration (together with a number of his undergraduate students) of the TLC procedures should be mentioned applicable to rapid screening under field conditions and with use of different speedy TLC kits of counterfeit and substandard drugs, particularly useful for quality control of pharmaceuticals, both legally and illegally traded in developing countries. On this purposely rather silent subject matter, he published an eye-opening and very interesting review paper entitled *Analysis of counterfeit drugs by thin layer chromatography* (J. Sherma, Acta Chromatographica, 19, 5–20, 2007). In the same spirit, he was also actively engaged in a transfer of numerous analytical procedures meant for rapid screening of counterfeit and substandard drugs (released in *A Concise Quality Control Guide on Essential Drugs and Other Medicines*, Vol. II, Thin Layer Chromatographic Tests) into carefully validated and well performing analytical methods in their own right, well suited for quality control of pharmaceuticals in regular pharmaceutical laboratories. A variety of the original research papers on this subject matter have been over the years published by himself together with his undergraduate students in a number of chromatography journals, yet mostly in *Acta Chromatographica* and *Journal of Liquid Chromatography and Related Technologies* (for which two journals he had served as Editorial Board member).

In order to even stronger consolidate an international community of planar chromatographers and to regularly promote top achievements in this field, in 2005 Joe decided for a precious initiative to edit one issue per year of the *Journal of Liquid Chromatography and Related Technologies*, focused exclusively on the TLC problems. For this relentlessly carried out project he had served for fifteen long years as Guest Editor and at the same time, as an inventive contributor, until this valuable initiative was terminated in 2019 by first emergence of his serious health condition.

Quite unique ties have connected Professor Joe Sherma with Polish chromatographic circles, and especially with those from the Institute of Chemistry, University of Silesia, Katowice, and the Faculty of Pharmacy, Medical University of Lublin. This collaboration started in 2006, lasted for a ca. dozen years, and focused on co-editing by Joe and the
predominantly Polish researchers of a good number of scientific monographs in the field of chromatography, all of them published by CRC Press. The first two monographs were co-edited by T. Kowalska and J. Sherma (Preparative Layer Chromatography, 2006, and Thin Layer Chromatography in Chiral Separations and Analysis, 2007), and the third monograph was co-edited by M. Waksmundzka-Hajnos, J. Sherma, and T. Kowalska (Thin Layer Chromatography in Phytochemistry, 2008). This latter book has gained an enormous interest worldwide, in the first instance among the researchers engaged in studying active components of medicinal herbs employed in different ethnomedical systems of the Mediterranean and Middle Eastern regions, India, China, and many other places on the world’s map. Then the sack with further monographs became really unwrapped and the consecutive monographs followed: M. Waksmundzka-Hajnos and J. Sherma, High Performance Liquid Chromatography in Phytochemical Analysis, 2010; Ł. Komsta, M. Waksmundzka-Hajnos, and J. Sherma, Thin Layer Chromatography in Drug Analysis, 2013; T. Tuzimski and J. Sherma, High Performance Liquid Chromatography in Pesticide Residue Analysis, 2015; T. Kowalska, M. Sajewicz and J. Sherma, Planar Chromatography-Mass Spectrometry, 2015; Ł. Komsta, Y. Vander Heyden and J. Sherma, Chromometrics in Chromatography, 2017; and T. Kowalska, M. Sajewicz and J. Sherma, Chromatographic Techniques in the Forensic Analysis of Designer Drugs, 2018.

Among other responsibilities, Joe had served as Co-Editor for the Journal of AOAC International, and in this capacity, he on the one hand promoted TLC as a seasoned and reliable analytical technique and on the other, the research interests and achievements of his European planar chromatography friends. To this effect, let us remind the J. AOAC Int. Special Sections prepared upon his personal invitation by Guest Editors, and particularly these by D. Agbaba and J. Sherma, New and Improved HPLC Methods for Drug Formulations and Clinical Analysis, 93(4), 2010; M. Waksmundzka-Hajnos, Modern High Performance Liquid Chromatography in the Analysis of Phytochemicals, 94(1), 2011; D. Agbaba and A. Malenović, New Methods for Drug Analysis in Biological Samples and Other Matrices, 94(3), 2011; I. Choma, Thin-Layer Chromatography Hyphenated with Bioassays, 96(6), 2013; Ł. Cieśla and M. Waksmundzka-Hajnos, Chromatographic and Biological Fingerprinting of Herbal Samples, 97(5), 2014; T. Kowalska and Ł. Cieśla, Assessment of Antioxidant and Antibacterial Potential of Medicinal Herbs and Botanical Preparations, 98(4), 2015. Last not least, this collaboration resulted also in the Encyclopedia of Pharmaceutical Science and Technology entry with D. Agbaba entitled Chromatographic Methods of Analysis: Thin Layer Chromatography (4th Ed., print and e-book version, Taylor & Francis).

Finally, the time for reflection has come and an inevitable question has to be posed: How such a continuous, dynamic and fruitful collaboration lasting for two or even three decades in the periods long preceding virtual on-line contacts (which are such a commonplace today) has been possible with a Person whom we have never met in real? It is highly probable that this mystery is hidden in a playful title of one lecture that Joe delivered on an otherwise very solemn occasion and which was “Chromatography - Handmaiden of Scientists”. He had apparently believed – just as we all do – that the starting point to success in chemistry and life sciences in general is planted on a foundation of reliable and brilliant experiment, which requirement chromatography, equally handmaiden and a real master, meets with considerable excess. Over the years, this shared belief acted as common denominator of our friendship and scientific partnership with Joe at such geographically considerable, yet emotionally quite irrelevant distance.

The chromatographic research community, and especially this from the eastern side of Atlantic Rim gathered around Acta Chromatographica, is deeply grateful to Professor Joe Sherma for his treasured partnership in our joint endeavours in the field of separation science and for his inspiring lifework.

TERESA KOWALSKA and MIECZYSŁAW SAJEWICZ, Co-Editors-in-Chief.

DANICA AGBABA, IVANA STANIMIROVA-DASZYKOWSKA and MONIKA WAKSMUNDZKA-HAJNOS, Editors.

**Editorial Board**

“Lafayette College – The Chem. Dept. announces the appointment of Dr. Joseph A. Sherma, Jr. as Instructor of Analytical Chemistry. Dr. Sherma received his B.A. at Upsala and his Ph.D. at Rutgers. His thesis was in the field of chromatography.” This statement appeared in the September 1958 issue of The Octagon, the newsletter of the Lehigh Valley Section of the American Chemical Society. And those short and simple words were so befitting of who Professor Sherma was, and yet not at all representative of the iconic figure he would become.

Joe Sherma was born in Newark, New Jersey, USA in 1934. He graduated from Upsala College in East Orange, NJ in 1955 as a chemistry major. From there he went to Rutgers University in New Brunswick, NJ, where he obtained his Ph.D. in Analytical Chemistry in 1958. Following completion of his degree, he came to Lafayette College in Easton, Pennsylvania as an instructor in the fall of 1958. He was promoted to Assistant Professor in the fall of 1959, followed by promotion to Associate Professor in 1963, and Professor in 1974. In 1982 he was named the Charles A. Dana Professor of Chemistry. In 1991, he was named the John D. and Frances Larkin Professor of Chemistry. In 2001 he would change titles at Lafayette for the last time when he became the John D. and Frances Larkin Professor Emeritus of Chemistry. Although retired, Joe continued working and was in his office nearly every day until he had a stroke in November of 2019. He passed away in August of 2021.

Over the span of 63 years at Lafayette, Joe made enormous contributions to the college. He served as the Head of the Chemistry Department for 13 years from 1984 to 1997. Joe received numerous accolades during his career including the Jones Faculty Lecture in 1968, the Jones Award for Superior Teaching and Outstanding Scholarship in 1971, the E. Emmet Reid Award for Excellence in Teaching from the Middle...
Atlantic Region of the American Chemical Society in 1988, the Mary Louise Van Arsdalen Prize for Outstanding Scholarly Achievement in 1989, the American Chemical Society Award for Research at an Undergraduate Institution in 1995, and along with Kreider Professor Emeritus of Biology Bernie Fried, was the inaugural recipient of the Delta Upsilon Distinguished Teaching and Mentoring Award in 1999.

Joe had impeccable style, wearing a suit to work nearly every day. Upon his retirement he would occasionally dress down and wear a tie and a sweater. Legend has it that early in his career he wore a sweater and tie to a faculty meeting. After the meeting, the president at that time pulled him aside and explained how his attire was inappropriate for a meeting of the faculty and how he had best wear a suit to the next meeting. His colleagues in the late 1980s recall Joe’s amusement when a student arrived in costume at a Department of Chemistry faculty-student Halloween party impeccably dressed as Joseph Sherma, complete with baby powder-white hair, and Joe’s signature handkerchief emerging from his suit jacket pocket.

But what Joe is most remembered for in the department is his passion for doing research with his students. His first paper from Lafayette was published in 1961, and not surprisingly, it included a student co-author. Even after his retirement, he continued working with students and his last two publications came out in 2020. Undoubtedly, there remains some work that will sadly never be published. In total, Joe had over 460 publications, an absolutely remarkable number, including scientific papers, chapters, and books. Many of these included student co-authors with over 150 different students coauthoring at least one article with Joe. Joe’s research interests started with analysis of pesticides by chromatography, but over the course of his career spanned the analysis of food additives, pharmaceuticals and metals. But the largest percentage of his work was in collaboration with the late Professor Bernie Fried. Professor Fried’s studies included the biochemical changes associated with parasitic flatworm infections in snails during their life cycles, and Joe applied his bioanalytical chemical expertise to characterize and quantify the biochemical changes associated with infection. They first published together in 1982, and over the course of the next 36 years produced 163 publications, many with student co-authors. Joe always had time for his research students and one would often walk past his office and see him eagerly engaged with students discussing research results or a publication.

When Joe took over as Department Head of Chemistry, he advocated with the Provost for enhanced departmental funding, and was integral in the development of the EXCEL Scholars Program at Lafayette which provides students with a stipend for doing research. His stated vision was “to elevate the Chemistry Department into a Premier Research Department” and the current and future faculty have, and will, continue to benefit from his tireless work in this matter.

Several years ago, the Sherma Scholars Fund was established at Lafayette to provide additional students with the opportunity to participate in research in the Department of Chemistry. From his letter to then-President Rothkopf announcing his American Chemical Society Award, Joe stated, “Although I have no interest in receiving personal acclaim through this award, I hope it can be widely publicized to achieve the greatest benefit for Lafayette College and the Chemistry Department. It occurs to me that it might be used as evidence of the quality of our program for the recruitment of students, granting agencies, and alumni and foundation fund-raising purposes.”

I started at Lafayette in the fall of 1999 as a visiting assistant professor. At that point Joe’s career as an in-class instructor was ending. As my field is inorganic chemistry, Joe and I never really talked about teaching. What we did talk about was doing research with undergraduate students. I recall this topic coming up during my interview, even though there were no expectations of me doing research as a visiting professor. I left my meeting with Joe in awe of his accomplishments and passion for research. At that stage in my career I had dreams and aspirations as to what I could do at a school like Lafayette and in talking with Joe I was able to put a name and a face to that vision. We had many conversations about working with students, funding, and dealing with administrators. I certainly owe a lot to Joe for his guidance in helping me shape the teacher-scholar that I am. Shortly after Joe’s passing, I was informed that I would be the second member of the chemistry department at Lafayette to receive the American Chemical Society Award for Research at an Undergraduate Institution. While the award is an incredible honor, it is all the more special because I am following in Joe’s footsteps. I only regret that he is not here to celebrate with me because I know he would have enjoyed that moment as would I.

There was more to Joe than just his passion for undergraduate research. He loved to go to New York City with his wife, Anita, to take in various shows. He was also a long-suffering fan of the New York Mets in baseball and the New York Jets in American football. In his later years, he took great pride in his grandchildren and enjoyed making plans for weekends they would be visiting. In his younger days he was also an avid golfer playing to 8 handicap. As time passed, Joe’s playing days came to an end. But he always enjoyed spending Father’s Day watching the final round of the U.S. Open golf tournament with his son, James. He is survived by his wife, Anita, son James, and daughter, Karen, and their families. He has also left an enduring mark on the lives of countless students and faculty at Lafayette College that had the privilege of knowing him.

CHIP NATARO
Chair of the Department of Chemistry at Lafayette College, Easton, PA, USA

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