Professor Dr.-Ing. Edmone Roffael

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We are deeply saddened by the loss of Prof. Dr.-Ing. Edmone Roffael who passed away on 14th of January 2021 at the age of 81.

Born in Tulkarm, Palestine, Edmone Roffael studied chemistry from 1955 to 1959 at the University of Alexandria, Egypt. He continued his studies in cellulose chemistry at the National Research Centre in Dokki, Cairo, from 1960 to 1964.

Excellent exam results, successful research works and first publications in European journals on the evaluation of pulps formed the basis of a scholarship for a second chemistry study at Darmstadt Technical University from 1965 to 1967, which he completed with the title of a graduate engineer. One year later (1968), he received the degree of a doctor engineer with a doctoral thesis in cellulose chemistry at the renowned Institute for Macromolecular Chemistry, Darmstadt under the supervision of Prof. Dr. Georg Jayme.

Following several months of research at the Pulp and Paper Research Institute of Canada in Pointe-Claire, Canada,

Edmone Roffael took a position as research assistant at the former Institute of Cellulose Chemistry at the Technical University Darmstadt. Together with Prof. Dr. Jayme, he published numerous research papers on the fine structure of cellulose. He also developed a method for quantitative determination of the mercerization of cellulose.

His expertise in cellulose chemistry and cellulose research was the entry into technical wood research. Between 1970 and 1993, he worked initially as a research scientist and later as head of department at the Wilhelm-Klauditz-Institute (WKI) in Braunschweig under the direction of Prof. Dr. Horst Schulz. He first conducted research on the utilization of technical lignins for the production of wood particleboards. In 1975, he submitted his habilitation thesis “Possibilities of gluing wood chips with phenol–formaldehyde resins and sulphite waste liquor” to the Faculty of Forestry and Forest Ecology at the Georg-August-University of Göttingen under his mentor Prof. Dr. Wolfgang Knigge. Edmone Roffael completed his habilitation with an award of a *venia legendi* in wood chemistry at the University of Göttingen in 1976.

At the WKI, he laid the foundations for the research on determination, evaluation and reduction of formaldehyde release from particleboards and other wood-based panels. Winning several awards in the 1980s together with his colleagues Lutz Mehlhorn and Rainer Marutzky honoured their seminal contributions to the field of research, which served as the basis for German and European standards, guidelines and regulations. In 1982, Edmone Roffael published his first book on formaldehyde release of particleboards and other materials; the extended edition in English followed in 1993.

Further research fields of Edmone Roffael at the WKI included the use of tannin-based resins from bark extracts for the production of wood-based panels, the determination of relevant factors influencing bonding of wood and the hydrophobization of wood-based panels.

In 1981, Edmone Roffael was appointed associate professor at the Georg-August-University Göttingen in the field of wood chemistry, followed by several short-term visiting professorships in Egypt (1982), Greece (1983), Chile (1985)

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and Bulgaria (1992). He also worked as a consultant for the wood-based panel and binder industry in Argentina, Belgium, Brazil, Chile, Malaysia and Sweden. During this time, he was able to establish and maintain numerous personal and professional contacts with scientific institutions and industries around the world, which testify to his communicative nature, his affability, his perseverance and patience, but not least to his international reputation.

In 1993, he accepted a call by the University of Göttingen to a professorship of Wood Science at the Faculty of Forestry and Forest Ecology. From 1995 to 2001, he was managing director of the former Institute for Forest Utilization, renamed as Institute of Wood Biology and Wood Technology in 1997. From 2001 on, Edmone Roffael headed the Department of Wood Chemistry and Wood Technology at the Institute. Based on research collaborations with national and international research institutions as well as with industry, he connected research and teaching towards a close link between forest utilization and the wood industry, especially the wood-based panel industry.

Prof. Dr. Roffael was an analyst with a sharp mind, always willing to start a scientific collaboration, to bring in smart ideas and also to take up new ideas. Thanks to his high level of expertise, his creative ideas and originality, his personal commitment, his perseverance, as well as his tireless activities in establishing and maintaining contacts with domestic and foreign research institutions and industries, he successfully continued in Göttingen the research he initiated at the WKI.

Under his scientific guidance, more than 20 doctoral theses and more than 40 diploma and master's theses were performed. In addition to his professional competence and inventiveness, his students, doctoral students, colleagues and co-workers appreciated his constant willingness to engage in professional discussions, his collegiality and humanity, his tolerance, his love of language, his special sense of humour and the reliability of his word.

The results of his scientific work are reflected in more than 400 scientific publications, short originals and countless lectures during national and international symposia and conferences as well as in patents.

Prof. Dr. Roffael was active in numerous committees and associations. He served for the former German Society for Wood Research (DGfH e.V.) in several expert committees. He was member of the Euro Wood Network, the United Nations Environment Programme Working Group, the

International Academy of Wood Science, the Zellcheming Association and the Cellulose-Chemists-Club Darmstadt. In addition, he participated as member of the editorial board of the current organ as well as the journal *Holzforschung*. Edmone Roffael was a frequently consulted expert for several research associations and project promoters.

He was the initiator and chairman of the Association for the Promotion of Wood Biology and Wood Technology Research (VFhF e.V.). In the years 1998 to 2018, under his direction, symposia on environmental and technical aspects on wood and wood-based panels were held in regular sequences. In these symposia, it was always important for him to offer a wide space for discussion and professional exchange.

After formal retirement in 2005, Prof. Dr. Roffael continued his activities as a scientific project leader at the University of Göttingen, consultant, expert and author. In 2017, he published the book "Formaldehyde in Nature, Wood and Wood Materials", both in German and English.

With Prof. Dr. Edmone Roffael's death, the wood sciences and the wood-based industries have lost a great personality, an outstanding scientist and thought leader, an esteemed expert, consultant and colleague.

Our deepest sympathy and thoughts are with his wife and family.

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