

Dedicated to Modern Hellenism & in Honor of Nobel Laureate in Chemistry, Prof. Avram Hershko



The image is a promotional banner for the SIPS 2024 symposium. It features a blue background with a white grid pattern. On the left, the year '2024' is written vertically in white. In the center, the letters 'SIPS' are rendered in large, bold, red 3D font. To the right of the 'SIPS' text is a portrait of a man with a grey beard and hair, wearing a suit and tie. To the right of the portrait is a white box containing the text 'STELTER INTERNATIONAL SYMPOSIUM' in bold black letters, followed by 'on Non-ferrous Smelting & Hydro/ Electrochemical Processing' in smaller black letters. At the bottom of the banner, the dates and location are given: '20-24 October 2024, Out of the Blue Resort, Crete, Greece'.

## Curriculum Vitae of Michael Stelter

### Stelter, Michael, Prof. Dr.-Ing.

Born: 06.08.1956, Nationality: German

Married with Margareta Stelter since 1983, 1 daughter Bettina born in 1986

Retired Full University Professor for Technology of Nonferrous Metals and Materials Recycling, Technische Universität Bergakademie Freiberg, Institute for Nonferrous Metallurgy and Purest Materials Leipzigerstraße 34, 09599 Freiberg / Saxony

### Scientific Career

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|------------|---|
| 1977-1983  | Study of chemistry, TU Darmstadt, Germany   |
| 1983-1987  | Ph.D. Dissertation, department of inorganic and nuclear chemistry, TU Darmstadt, Subject: „Preparation and structural chemistry of alkaline-earth pentelido-aluminates, -gallates and -indates“     |
| 1983-1987  | Scientific assistant, TU Darmstadt  |
| April 1987 | Ph.D. degree awarded  |
| 1987-1993  | R&D department of Norddeutsche Affinerie AG, Hamburg  |
| 1989-1994  | Deputy director R&D department of Norddeutsche Affinerie AG, Hamburg  |
| 1992-1994  | Appointment to the board of directors of Transvaal Alloys Pty., South Africa  |
| 1994-1996  | Director of the department of technology and process development, GOEMA GmbH, Vaihingen/Enz, Germany  |
| 1996-1997  | Technical director of RPE GmbH, Freiberg/Breisgau   |
| 1997-2020  | Full Professor and director of the institute for Nonferrous Metallurgy and Purest Materials of TU Bergakademie Freiberg, professorship in „Technology of Nonferrous Metals and Materials Recycling“ |
| 1997- 2012 | Technical consultant of expert services for the Federal Ministry for Education and Research in the domain of environmental protection technology  |
| 2000-2003  | Vice Rector for Education and Structural Development of TU Bergakademie Freiberg  |
| 2004-2023  | Member of the Presending Board of GDMB (Society of Metallurgists and Miners, Germany)   |
| 2007-2018  | Vice President of the GDMB (Society of Metallurgists and Miners, Germany)   |
| 2010-2013  | Vice Rector for Research of TU Bergakademie Freiberg  |
| 2014       | German Raw Materials Efficiency Award 2014  |
| 2014       | “Kaiserpfalz-Preis der Metallurgie” awarded with 50,000 €   |
| 2018-2021  | President of the GDMB (Society of Metallurgists and Miners, Germany)  |

### Further Professional Activities

#### Membership

- GDMB Member since 1997
- GDMB Committee for Education & Training in Metallurgy, chairman
- German Association for Water, Wastewater & Waste, member of the experts committee 7.1.8
- German Society for Plating and Surface Engineering, member of the experts committee

## “Environment” Editorial

### Activities

- World of Metallurgy (former Erzmetall), Board of Editors since 1998 Activities in Scientific Conferences
- Membership of International organizing committee “European Metallurgical Conference 2001”, Friedrichshafen, Germany
- Membership of International organizing committee “European Metallurgical Conference 2003”, Hannover, Germany • Membership of International organizing committee “European Metallurgical Conference 2005”, Dresden, Germany • Membership of International organizing committee “European Metallurgical Conference 2007”, Düsseldorf, Germany
- Membership of International organizing committee “Copper 2007”, Toronto, Canada
- Membership of International organizing committee “European Metallurgical Conference 2009”, Innsbruck, Germany • Membership of International organizing committee “European Metallurgical Conference 2011”, Düsseldorf, Germany
- Membership of International organizing committee “Copper Metallurgy” (50<sup>th</sup> Anniversary of KGHM), Krakow, Poland, 2011
- Membership of International organizing committee “Fray International Symposium”, Cancun, Mexico, 2011
- Membership of International organizing committee “European Metallurgical Conference 2013”, Weimar, Germany
- Membership of International organizing committee “European Metallurgical Conference 2015”, Düsseldorf, Germany
- Membership of International organizing committee “European Metallurgical Conference 2017”, Leipzig, Germany
- Membership of International organizing committee “European Metallurgical Conference 2019”, Düsseldorf, Germany
- Membership of International organizing committee “European Metallurgical Conference 2021”, Virtual Meeting
- Membership of International organizing committee “European Metallurgical Conference 2023”, Düsseldorf, Germany

### Research topics

#### Production, Refining and Recycling of Non-Ferrous Metals Using Environmentally Safe Technologies

- Optimization of pyrometallurgical technologies to complete the recycling of materials and to minimize ecological damage and energy consumption
- Development of methods and facilities for electrolytic and hydrometallurgical extraction of metals and refining of non-ferrous metals
- Processing of process solutions and waste solutions
- Investigations of anode and cathode processes
- Flow processes in metallurgical processing equipment
- Thermodynamic modeling of metallurgical processes

#### Thermodynamics, Kinetics, and Technology of Electronic Materials Production

- Modeling of the thermodynamic conditions for the production of ultra pure materials and semiconductors
- Development of methods and facilities for the growth and production of semiconductor single crystals
- Optimization of the flow conditions in crystallization processes under  $\mu\text{g}$  conditions (space research)
- Development of pure materials for photovoltaic applications
- Investigation and optimization of the micro- and mesoscopic homogeneity of semiconductors
- Wall-free growth of semiconductor single crystals (detached Bridgman-, Floating-Zone growth)
- Investigation of concentration and temperature dependent surface tension effects in semiconductor melts