



DEPARTMENT OF CIVIL ENGINEERING

SEMINAR

Solid waste and Eco-materials in China: organization, research and industrial trial

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Date: December 13, 2023 (Wednesday)

Time: 3:00 p.m. – 4:00 p.m.

Venue: Room 612B, 6/F Haking Wong Building, HKU

ABSTRACT*Part I: Introduction of the Solid Waste and Eco-materials Association*

As the chairman of the Solid Waste and Eco-materials Association of the Expert Committee, the main work of the Solid Waste and Ecological Materials Association in the past ten years will be introduced. The Solid Waste and Ecological Materials Association serves as an important platform for domestic and foreign colleagues to cooperate and exchange and promotes scientific research, technological inventions and applications, and the transformation of scientific and technological achievements in the fields of solid waste treatment and ecological environmental materials. The association has been promoting comprehensive cooperation among colleges and universities, scientific research institutes, and enterprises across the country and achieving a series of results. The association has 10 special committees and more than 400 experts, scholars, and entrepreneurs have joined it. It has been the largest academic group in the field of solid waste treatment in China.

Part II: The main research directions and research progress of the research group

- i: Industrial/mining solid waste treatment and ecological construction material preparation and application, including hydration reaction mechanism and reaction thermodynamic control of high-solid waste content cement and all solid waste geopolymer cement, design of high-solid waste content and all-solid waste concrete, Bonding characteristics and interface properties between solid waste cementitious materials and solid waste aggregates and artificial aggregates, and long-term and durability of high solid waste content and all-solid waste concrete.
- ii: Hydration and hardening properties and application of natural hydraulic lime (NHL)
- iii: Harmless treatment and application of municipal solid waste incineration fly ash (MSWI)

ABOUT THE SPEAKER

Dongmin WANG is a professor at the School of Chemistry and Environmental Engineering at China University of Mining and Technology (Beijing), dean of the Institute of Concrete and Environmental Materials at China University of Mining and Technology (Beijing), and serves as the executive director of the Chinese Ceramic Society and the solid waste director of the Chinese Ceramic Society. Chairman of the Solid Waste and Eco-materials Branch of the Expert Committee. He concurrently serves as the Vice Chairman of the Green Building Materials Industry Technology Innovation Strategic Alliance of the Ministry of Housing and Urban-Rural Development and the Deputy Chairman of the Alliance Technical Committee. He has long been committed to the research on the fine chemical synthesis and application of modern high-performance cement concrete materials and their chemical admixtures, as well as the treatment of industrial/mining solid waste and the preparation and application of ecological environment building materials. The researched materials and patented technological achievements have been widely used in the construction of major national projects. He has presided over more than ten related key R&D projects of the Ministry of Science and Technology, general projects of the National Natural Science Foundation of China, regional joint projects of the National Natural Science Foundation of China, and dozens of joint R&D projects of the industry. He has published more than 100 papers in journals such as the Journal of Ceramic Society, Cement and Concrete Composites, and Construction and Building Materials, authorized more than 20 invention patents, and published 6 academic monographs.

The seminar will be in Chinese.

- ALL ARE WELCOME -