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Conference Report: Green and Sustainable Chemistry Conference

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Conference Report: Green and Sustainable Chemistry Conference

1. Introduction

The 2nd Green and Sustainable Chemistry Conference was held from Monday May 15th to Wednesday May 17th. At the opening of the Conference there was a sense of anticipation: can this be as good as the first edition? It was! The only dilemma was choosing between the parallel sessions.

2. The Opening Session

Fortunately, the first morning began with a central plenary session. The opening speeches, by Conference Chair Klaus Kümmerer, the President of the German Chemical Society Thisbe Lindhorst and Dorota Jarosinska, of the World Health Organization, reminded us of the importance of sustainability and respecting nature not only for the planet but also for human health. Professor Lindhorst outlined that "sustainable chemistry is dedicated to a better life, to true knowledge and respect for the generations to come". Dr Jarosinska pointed out that as much as 23% of deaths are due to modifiable environmental factors: emphasizing what an important role chemistry has to play in the health of the world. Jochen Flasbarth, from the German Federal Ministry for the Environment introduced and invited us all to the opening of the International Sustainable Chemistry Collaborative Centre (ISC₃), set up to support all those involved in establishing Sustainable Chemistry worldwide as a key component of sustainable development. Martin Kayser (Senior Vice President of Product Safety, BASF) described some of the ways in which industry is helping to support sustainability by responsible consumption and recycling waste. Since 95% of all manufactured goods are touched by chemistry, a sustainable world is not possible without the help of chemists.

Who better than to give the opening lecture than Professor James Clark of York University (Fig. 1)? As a scientist with a long track record in green chemistry, he gave us a through overview of the challenges still facing chemists, including having to use unconventional sources of raw materials and how, when designing chemical processes, waste should be considered as an integral part of the process. He emphasized that the linear economic method of using the world's resources to produce consumer goods was no longer tenable. To make chemistry really green, we need to introduce the circular economy, where everything is used and reused. Waste is not an end product but a resource for new chemicals.

3. Green and Sustainable Chemistry Challenge

The finalists of the second Green and Sustainable Chemistry Challenge then gave short presentations on the projects that they wanted to develop with the help of the 50,000 euros prize money for the first prize and 25,000 euros for the second prize. The projects were varied:

Biobased polyurethanes: raw-materials from used cooking oils by Alvaro Orjuela

A proposal for a sustainable technology to purify and transform used cooking oils into raw materials for the oleochemical industry to produce plastics, resins, and detergents, offering a cheap, sustainable alternative to commonly used edible feedstock such as vegetable oils and fats.

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