The metamorphosis of analytical chemistry

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Abstract :(600words)

Defining analytical chemistry as the measurement of isolated compositional features in a selected study object ignores the unique perspective that analytical chemists bring to twenty-first century science and society. In this feature article, we will discuss some of the existing preconceptions and misinterpretations of analytical chemistry that occur at present and will tackle them from the more up-to-date perspective of science in the Big Data Era. This will place their influence in context while simultaneously enlarging the scope of the discipline analytical chemistry to its well-deserved prevalent position in present-day science and technology. Over the last 20 years or so, analytical chemistry became increasingly intertwined and embedded as an important component of science in the Big Data Era. Big Data, coupled with new data analytics, challenges well-established concepts in analytical chemistry, engendering paradigm shifts across the discipline. This article examines the consequences of this transformation process in various aspects. The discipline must rethink its fundamentals, its position in science at large, its educational aspects and its practices, rules, and definitions.

Biography :(200 words)

Freddy Adams was in Department of Chemistry, University of Antwerp, Drie Eiken Campus, Universiteitsplein 1, 2610 Antwerp, Belgium, and he also published more than 10 articles .He published many articles and also interested in researches like Analytical chemistry, Chemical analysis, Scope, Evolution, Review, Big Data Era, Measurement science.

About Research Topic: (200 words)

At present, analytical chemistry acts at the interplay between composition, structure and structural defects on one side and properties and functionality of soft and hard material objects on the other. It moved away from a chemistry-oriented field of research to one in a more broadly defined cross-disciplinary denominator, similar to auxiliary fields such as spectrometry, materials science or environmental science. While chemistry remains the basis for its development aspects, its applications in chemical analysis range over the entire scientific realm. Analytical equipment and analytical methodologies are enabling technologies for science and society. In a way, analytical chemistry is like an expat, a migrant (not a fugitive): it has its roots in chemistry, but its ambitions and expectations are situated elsewhere, all over science, in industry and society.

About Institution: (200 words)

The University of Antwerp (Dutch: Universiteit Antwerpen) is a major Belgian

university located in the city of Antwerp. The official abbreviation is UA, but UAntwerpen is more recently used. The University of Antwerp has about 20,000 students, which makes it the third largest university in Flanders. The University of Antwerp is characterised by its high standards in education, internationally competitive research and entrepreneurial approach. It was founded in 2003 after the merger of three smaller universities.

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