



University of Groningen

## Molecular assemblies and their electric properties

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## **Propositions**

Marco Carlotti

1. By opportunely tailoring the measurement conditions, one can measure anything: this is one of the main reasons why we need peer review.

2. Chemical modification is a great tool to tailor the electronic properties of a material, yet, the effects and the interactions arising from the different identity of the atoms involved cannot be neglected (Chapter 3 & 5).

3. When computational methods are used to propose new compounds, one should always discuss their feasibility, at least thermodynamically (Chapter 5).

4. To be an expert in a certain scientific field can be summarized in being able to tell apart interesting findings from artifacts.

5. Peers of scientific articles should perform the reviewing process without knowing the identity of the authors.

6. Almost anything can be proven with flawless logic if it is based on a faulty hypothesis.

7. The formulation of hypotheses should always be the first step when tackling a scientific investigation, while the discussion of the results should come last.

8. The publish-or-perish system has led astray normal science, philosophy of science, and epistemology: a closer interaction between these disciplines would grant an improved awareness of the role of the scientist in the society.

9. The focus of Universities should be on education over research: academics should not only educate the students, but also actively be a

reference for the rest of society and the policy-makers. In this scenario, research should be a tool rather than an end.

10. To be a material chemist is a lot like being a chef: adding a certain flavor to a dish, as much as conferring a material a certain property, is simple, but that does not assure that the former is going to be tasty nor the latter functional.