**Article focus: A brainstorming exercise**

In one or two sentences, answer each of the following questions. Please be sure that your answers are appropriate for a general audience.

1) Why is your field important?

The direct costs of corrosion are approximately 3% of an industrialized nation’s gross domestic product (GDP). Meanwhile, all branded organic galvanized steel products must be chromate-free by the end of 2017.

2) What has already been studied in your field?

The overall performance of the commercial corrosion inhibitors. To which degree are they working.

3) What has not been studied? Why is this gap significant?

Fundamentals about the working principles of corrosion inhibitors with classical electrochemical tools.

New electrochemical tools to study (the synergistic action between) the corrosion inhibitors and their protective performance.

4) How does your research relate to this gap, and what is the goal of the current article?

The goal of this article is to develop a new electrochemical analysis tool to effectively study the fundamental performance of corrosion inhibitors.

5) What have you done, or what are you doing, to achieve this goal?

I elaborated on a new electrochemical tool and tested it on a well-known corrosion inhibitor system.

6) What is the working title of your article?

The use of odd random phase electrochemical impedance spectroscopy to study corrosion inhibition by active protective lithium-based coatings.