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in kemijsko tehnologijo

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VABILO NA PREDAVANJE
V OKVIRU DOKTORSKEGA ŠTUDIJA
KEMIJSKE ZNANOSTI / INVITATION TO THE
LECTURE WITHIN DOCTORAL PROGRAMME IN
CHEMICAL SCIENCES

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z naslovom / title:

**Design Principle of Electrocatalyst: Integrating
Activity-Stability Relationship**

**v sredo, 20. 12. 2023 ob 15. uri /
on Wednesday, 20. 12. 2023 at 15.00**

**v predavalnici 1 v 1. nadstropju Fakultete za kemijo in
kemijsko tehnologijo, Večna pot 113 / in lecture room 1,
1st floor at the Faculty of Chemistry and Chemical
Technology, Večna pot 113**

Vljudno vabljeni! / Kindly invited!

Abstract:

Activity and stability are critical factors in energy conversion and storage devices. During the initial stages of research, activity is often emphasized as the primary parameter for assessing electrochemical performance. Traditionally, the design of active catalysts has relied on energetic factors, which form the basis of the well-known volcano relationship. However, there is growing evidence suggesting that design principles should extend beyond activity and incorporate stability considerations. The ideal scenario is to achieve both high activity and stability by establishing functional connections between the two. Unfortunately, most studies still treat activity and stability as separate goals. To address this limitation, it is crucial to establish functional links between activity and stability based on the underlying reaction mechanism. Therefore, conducting comprehensive studies to uncover the relationships between stability and activity in electrochemical environments can significantly contribute to the design of new materials that possess both high activity and stability. This discussion will highlight the importance of the activity-stability relationship, using examples from the field of electrocatalyst.