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**Corrosion behavior of TiC-Ni-5Mo<sub>2</sub>C cermet****Nawarat Worauaychai<sup>1</sup>** and **Napachat Tareelap<sup>2</sup>**<sup>1</sup>Ramkhamhaeng University, Thailand<sup>2</sup>King Mongkut's University of Technology Thonburi, Thailand

Corrosion in TiC-Ni-5Mo<sub>2</sub>C cermet was studied in 0.3M H<sub>2</sub>SO<sub>4</sub>, 1M NaCl and 1M NaOH by means of anodic polarization method. Corrosion morphologies were then examined by SEM-EDS. The results showed that there are two ranges of passive region in acidic condition; whereas only one passive region was observed in alkaline solution. In case of chloride containing solution, passive region was hardly observed. The SEM micrographs revealed that nickel binder was a corrosion onset site in acidic and salt solution. In contrast to alkaline condition, the deterioration commenced at TiC. The driving force for corrosion susceptibility was the micro-galvanic cell formation between TiC and Nickel.

**Biography**

Nawarat Worauaychai has completed her PhD from Division of Materials Technology, School of Energy, Environment and Materials, King Mongkut's University of Technology Thonburi, Thailand. She is a Lecturer at Department of Materials Technology, Ramkhamhaeng University. She has her expertise in powder metallurgy and corrosion study of alloys and composite materials. Most of her research ideas are mainly on synthesis of new alloys and evaluation of mechanical properties and corrosion behavior.

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