

### عنوان مقاله:

Self-healing epoxy coating containing linseed oil loaded micro capsules for steel

### محل انتشار:

دومین کنفرانس بین المللی یافته های نوین پژوهشی در شیمی و مهندسی شیمی (سال: 1395)

تعداد صفحات اصل مقاله: 8

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### خلاصه مقاله:

Effectiveness of epoxy coatings filled with linseed oil loaded micro capsules was investigated for healing the cracks generated on steel. Micro capsules were synthesized by in-situ polymerization method. Characteristics of these micro capsules were studied by Fourier-transform infrared spectroscopy (FTIR), Differential scanning calorimetry (DSC), Scanning electron microscopy (SEM) for chemical investigation, thermal stability and surface morphology respectively. Anti-corrosion effect of prepared coating was investigated by Electrochemical impedance spectroscopy (EIS). Cracks in a paint film were successfully healed when linseed oil was released from microcapsules ruptured under simulated mechanical action. Linseed oil healed area was found to prevent corrosion of the substrate

### کلمات کلیدی:

Self-healing, Corrosion, Linseed oil, Microcapsule

### لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/477430>

