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زمینه های تحقیقاتی:

انرژی های تجدیدپذیر، انرژی خورشیدی، نمک زدایی خورشیدی آب، سلول های خورشیدی پلیمری و پروسکایتی، افزاره های اپتوالکترونیکی آلی، کوانتوم دات ها

دروس تدریس شده:

-انرژی و محیط زیست

کاتالیست های غیرهموژن

فناوری های تولید هیدروژن و پیل سوختی

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تحقیقات علمی و پروژه‌های انجام شده:

- ✓ بررسی اثر سازگارکننده و ترکیب درصد رابر برآلیاژ **PP-EPDM** همراه با کار عملی (پروژه کارشناسی به راهنمایی دکتر حمید گرمابی).
- ✓ تلفیق فناوری نانو و قالبریزی ژل در شکل‌دهی سرامیکهای مهندسی(قالبریزی ژل نانوپودر آلومینا).
- ✓ شیمی رئولوژی قالبریزی ژل سامانه‌های نانوکامپوزیتی بر پایه سیالون به منظور ساخت قطعات نمونه سرامیکی(پروژه کارشناسی ارشد به راهنمایی دکتر مهرداد کوکبی).
- ✓ بررسی ساخت رادم موشک .
- ✓ **بررسی علل خوردگی بازوهای Vario Shattle ایران خودرو و ارائه راهکارهای مناسب اجرایی جهت جلوگیری از آن توسط پیشنهاد پوشش مناسب**
- ✓ پوشش دهی قلزات با استفاده از رزین های پلیمری
- ✓ بررسی فرایند قالبریزی ژل نانوکامپوزیت نانولوله‌کربنی/سیالون.
- ✓ ساخت مقره های کامپوزیتی در خطوط انتقال برق
- ✓ بررسی پیرشدگی و زوال مقره های سیلیکونی در خطوط انتقال برق

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