گواهی ثبت مقاله در سیویلیک گواهی ثبت مقاله در سیویلیک CIVILICA.com

عنوان مقاله:

Modified Equation of State Applied to Refrigerants

محل انتشار:

مجله ُشیمی فیزیکی و الکتروشیمی, دوره 4, شماره 2 (سال: 1395)

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خلاصه مقاله:

An analytical equation of state has been previously modified by Papari et al. for representing the volumetric properties of molecular fluids. However the performance of that EOS has not been yet well investigated for refrigerant fluids. This study extended that equation to 19 liquid refrigerants to predict their densities at isothermal and saturated states. Two temperature-independent parameters appearing in the modified EOS are closely related to critical point properties of refrigerant fluids. Our results showed that, the proposed EOS can predict well isothermal and saturated liquid destinies of studied refrigerants over the temperature and pressure range from ۱۳۷-۴۰۰ K and ۰.۰۰۱-۱۸۷۰ bar, with AADs equal to .۲.۱۶% and ۲.۶۶%, respectively

کلمات کلیدی:

Equation of state, Refrigerant, Liquid density

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