

## عنوان مقاله:

Modeling of Some Thermodynamic Properties of  $UF_6$  at Low Pressure Using Correlation Function

## محل انتشار:

مجله تحقیقات و کاربردهای هسته ای، دوره 1، شماره 1 (سال: 1400)

تعداد صفحات اصل مقاله: 10

## نویسنده:

Mohsen Najafi - Nuclear Fuel Cycle Research School, Nuclear science and Technology Research Institute, Tehran, I  
R Iran

## خلاصه مقاله:

The properties of uranium hexafluoride ( $UF_6$ ) are of importance to the nuclear industry as a precursor for the enrichment. Therefore it is of importance to obtain the most accurate properties for such a strategic compound. In this paper, some thermophysical properties of uranium hexafluoride ( $UF_6$ ) at low pressure and below the critical temperature are predicted and modeled using its correlation function of second virial coefficient and virial equation of state (VEOS). Studied properties consist of Joule-Thomson coefficient, enthalpy, deviation function, fugacity coefficient, thermal expansion and isothermal compressibility. So far, several researchers have studied virial coefficients of  $UF_6$  and some of them have presented its correlation function of second virial coefficient. In this work, The studied correlation functions are the ones suggested by Dymond and Zarkova. The obtained results show that the correlation equations presented have a good ability to predict and model the thermophysical properties of uranium hexafluoride and its deviation from the ideal state especially in the temperature range from 360 K up to critical temperature.

## کلمات کلیدی:

Uranium hexafluoride, Virial Coefficients, Correlation function, Thermodynamic properties

## لینک ثابت مقاله در پایگاه سیویلیکا:

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