

عنوان مقاله:

Silver nanoparticles as a cyanide colorimetric sensor in aqueous media

محل انتشار:

اولین کنفرانس ملی علوم و فناوری نانو (سال: 1389)

تعداد صفحات اصل مقاله: 5

نویسندگان:

Salahaddin hajizadeh - *Department of Chemistry, Faculty of Science, Urmia University, Urmia, Iran*

Khalil Farhadi - *Department of Chemistry, Faculty of Science, Urmia University, Urmia, Iran*

Reza Emamali- Sabzi - *Department of Chemistry, Faculty of Science, Urmia University, Urmia, Iran*

خلاصه مقاله:

We report here a simple, cost effective, rapid, sensitive and selective colorimetric sensor for the detection of cyanide using silver nanoparticles. The sensitivity and selectivity was also investigated. We suggest that cyanide can bound to the Ag NPs surface, and moved SDS away from the silver surface. As a result, it is expected that a redox reaction can occurs between silver and O₂ of air. There is a linear relationship ($y=7644.1x+0.0099$, $R^2 =0.9968$) between the absorbance intensity of the Ag NPS and concentra(on of CN⁻ ion over the range from 16.7 μ M to 133 μ M at the absorp(on of 394nm. The proposed has been successfully used for the determina(on of cyanide in different water samples.

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا:

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