

## عنوان مقاله:

Introducing of new applicable methods in sampling system and laboratory at power plant for simultaneous determination of silicate and phosphate in drum water and steam, with examination of relevant scholarly achievements

## محل انتشار:

بیست و سومین کنفرانس بین المللی برق (سال: 1387)

تعداد صفحات اصل مقاله: 11

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## خلاصه مقاله:

simultaneous determination of silicate and phosphate for investigation to reach to suitable methods that are applicable in power plants for better chemical control of water and steam cycle, was considered. With investigation of advantages and disadvantages these methods, this result acquits that we could use Flow Injection Analysis (FIA) method as an automatic technology in In this article, scholarly researches on sampling system at power plants. This device can analyze 60-120 samples per hours for determination of silicate and phosphate. In laboratory it seems to First-Derivative Spectroscopy (FDS), High performance liquid chromatography (HPLC) and Artificial Neural Networks (ANNs) methods can be replacing with traditional standard methods. In ANNs method, ANSA solution is eliminated and cause more safety conditions in laboratory for tester. In HPLC method like to ANNs method ANSA reagent is eliminated but this method has long duration Producer. The best method that can be developed in laboratory for simultaneous determination of silicate and phosphate is FDS, undoubtedly. Although this method need heating step in its producer but it is simple and inexpensive method that can be done at suitable duration.

## کلمات کلیدی:

determination, Silicate, Phosphate, Boiler, Sampling

## لینک ثابت مقاله در پایگاه سیویلیکا:

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