

## عنوان مقاله:

Microplastic particles in indoor dust of the school classroom from Shiraz, Iran

## محل انتشار:

سومین کنفرانس علوم و فناوری های شیمی کاربردی: شیمی زمین و شیمی محیط زیست (سال: 1399)

تعداد صفحات اصل مقاله: 7

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## خلاصه مقاله:

The present study is carried out to assess the abundance, distribution, characteristics, and source of MP particles in the school classrooms of Shiraz for the first time. For this reason, 50 indoor dust samples were collected from various boy's and girl's elementary and high schools. The number of MP particles varied between nearly 80 and 55,000 items/g dry weight. The number of MP particles indicated to be increased towards the central and southeastern sectors of the city. The concentration of MPs is affected by an increase in the population and student density, and higher traffic load and industries towards the center and southeast, as well as the prevailing wind from the northwest. MPs were dominantly fibers larger than 250  $\mu\text{m}$  in length, and constituted polyethylene terephthalate or polypropylene, with a range of various heavy metals such as Cu, Pb, Sb, Zn. Based on calculations, students from elementary schools being in the age range 6 to 14 years may be exposed to a various number of MP particles ranging from 5 to 440 items day<sup>-1</sup> through inadvertent ingestion.

## کلمات کلیدی:

Dust, Exposure, Fiber, School

## لینک ثابت مقاله در پایگاه سیویلیکا:

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