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Seasonal changes of the 214Po and 213Po half-life solar-daily variation parameters

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Results of a search for hidden patterns in the behavior of the 214Po half-life solar-daily variation parameters obtained in the data collected in the 2012-2015 years are presented. It is shown that amplitude of the sine curve approximated a half-life solar-daily dependence obtained for an each season of the year by an averaging through 90 days could reach $3.3\cdot10-3$ from the daily averaged value. Similar analysis of the data collected in the 2018-2022 years for the 213Po showed that the amplitude of a deviation from the averaged value could reach $2.3\cdot10-3$. This effect could limit an accuracy of precise but short time-duration measurements of such short-lived isotopes giving a systematic error. New value of the 213Po half-life is presented.

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