再録論文

005 アズレンに関する研究(第5報) グアイアズレンの加熱について

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Studies on Azulenes. V. On the Heating of Guaiazulene

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(Received July 31, 1967)

It has been reported that heating of guaiazulene result in its conversion to Se-guaiazulene and a naphthalene derivative but no details of how much of heating or how far the changes go. In order to confirm these points, the present series of experiments was carried out and the amount of guaiazulene converted was determined by infrared spectral measurement. In general, the amount of conversion is larger, the smaller the amount of the material used and the higher the temperature of heating. Heating of 15 g of guaiazulene at 270° for 20 hours resulted in ca. 40% conversion, and of 15 g at 300° for 16 hours or 5 g at 300° for 3 hours resulted in ca. 90% conversion. In all these cases, heating produced a viscous mixture, suggesting polymerization but formation of Se-guaiazulene was indicated by infrared spectra, and gas chromatography showed that guaiazulene had changed into several kinds of compounds.