28. Preparation of Organo-mercurisulfides. (II)

Seishi Takagi, Hisashi Tanaka and Hiroaki Tsukatani

(S. Takagi Laboratory)

For the purpose of obtaining germicidal substances, we prepared some phenyl-mercurisulfides, which have the formula of \( R_1SHgR_2 \). Phenylmercurichloride was suspended in alcohol and under cooling, alcoholic solution of thiophenol was added little by little. At first solution became clear and then white precipitate gradually appeared. Recrystallizing from alcohol, colourless fine needles were obtained. This is phenylmercuriphenylsulfide. Usually, in this case, it was inevitable that a little amount of mercaptide of corresponding thiophenol (\( R_1SHgSR_1 \)) were produced. By the same procedure, the following thirteen compounds were obtained.

<table>
<thead>
<tr>
<th>Compound</th>
<th>m. p.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenylmercuri-phenylsulfide</td>
<td>103.5°</td>
</tr>
<tr>
<td>Phenylmercuri-o-tolylsulfide</td>
<td>168°–169°</td>
</tr>
<tr>
<td>Phenylmercuri-p-tolylsulfide</td>
<td>104°</td>
</tr>
<tr>
<td>Phenylmercuri-p-chlorophenylsulfide</td>
<td>150°</td>
</tr>
<tr>
<td>Phenylmercuri-( \alpha )-naphtylsulfide</td>
<td>154.5°</td>
</tr>
<tr>
<td>Phenylmercuri-benzylsulfide</td>
<td>134°–135°</td>
</tr>
<tr>
<td>p-Chlorophenylmercuri-phenylsulfide</td>
<td>139°–140°</td>
</tr>
<tr>
<td>p-Chlorophenylmercuri-o-tolylsulfide</td>
<td>141°</td>
</tr>
<tr>
<td>p-Chlorophenylmercuri-p-tolylsulfide</td>
<td>145°</td>
</tr>
<tr>
<td>p-Chlorophenylmercuri-p-chlorophenylsulfide</td>
<td>161°–162°</td>
</tr>
<tr>
<td>p-Chlorophenylmercuri-benzylsulfide</td>
<td>128°–130°</td>
</tr>
<tr>
<td>m-Nitrophenylmercuri-phenylsulfide</td>
<td>237°–239°</td>
</tr>
<tr>
<td>m-Nitrophenylmercuri-p-tolylsulfide</td>
<td>244°–246°</td>
</tr>
</tbody>
</table>

29. Chromatography of Fatty Acids. (Preliminary Report)

Itsuro Yamakita and Hiroshi Aida

(Goto Laboratory)

It was reported that fatty acids mixtures of lower molecular weight (\( C_1 \sim C_{16} \)) could easily be separated by the partition chromatography (M.H. Peterson and M.J. Johonson; J. Biol. Chem. 174, 775 (1948), L.L. Ramsey and M.J. Patterson; J. Assoc. Official Agr. Chem. 31, 139 (1948), but those of higher molecular weight could hardly be done by this method. Recently the separation of the latter was attempted