

**P44 CONDENSATION REACTIONS IN THE SYSTEMS  
“SO<sub>2</sub> – L – CH<sub>2</sub>O – H<sub>2</sub>O” (L – PRIMARY AMINES)**

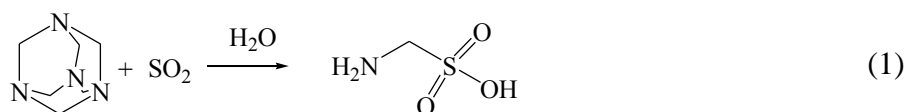
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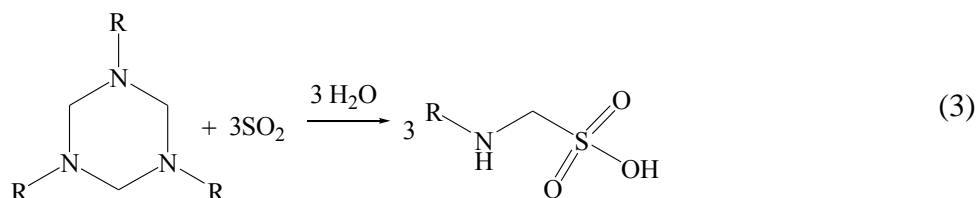
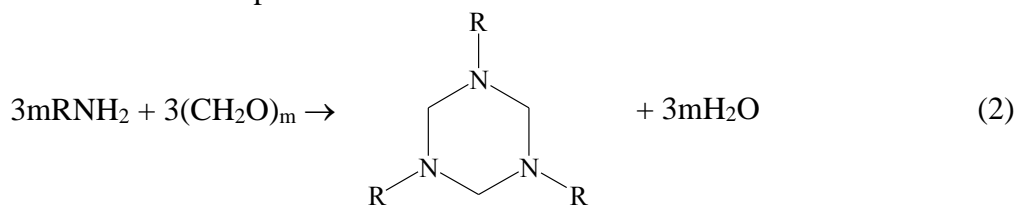
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We have previously shown [1] that the interaction of sulfur (IV) oxide with hexamethylenetetramine (HMTA) in aqueous solution results in the aminometansulfonic acid (AMSA):

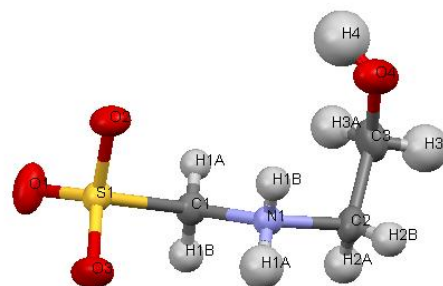


An attempt has been made to synthesize the AMSA derivatives using the reaction of formaldehyde with various amine components in two stages without isolation of the intermediate product in the first step:



R – alkyl, hydroxyalkyl.

The compounds obtained by the above given scheme (R = HOCH<sub>2</sub>CH<sub>2</sub>-, (HOCH<sub>2</sub>)<sub>3</sub>C-, (CH<sub>3</sub>)<sub>3</sub>C-, C<sub>6</sub>H<sub>5</sub>CH<sub>2</sub>-) have been identified by elemental analysis, mass spectrometry and IR spectroscopy. The crystal structure of N-(hydroxyethyl)aminometansulphonic acid has been determined by X-ray diffraction for the first time (Fig.).



The spectral characteristics of the reaction products and the possibilities of synthesis related to the chemical transformations of ligands will be discussed.

**References**

[1] Khoma R.E et al // Rus. J. Gen. Chem. 2011. V. 81. № 3. P. 620.