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Benzenesulfinic Acid and Some of Its Derivatives

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BENZENESULFINIC ACID AND SOME OF ITS
DERIVATIVES

STEWART E. HAZLET AND L. CHAS. RAIFORD

The migration of acyl from nitrogen to oxygen in *o*-aminophenol derivatives has previously been studied in this Laboratory.¹ Rearrangement occurred with the acyls derived from carboxylic acids, but not with those obtained from sulfonic acids. It was therefore proposed to study the behavior of the sulfinyl radical in this connection.

Since *o*-aminophenols are compounds of multiple functions, it was necessary to investigate the behavior of the acyl derived from a sulfonic acid with the groups present in this compound of multiple functions, namely, amino and hydroxyl. The preparation and properties of benzenesulfonic acid and benzenesulfinyl chloride have been studied. Nineteen new benzenesulfinamides have been prepared and their properties determined; the sulfonic analogues which were not on record have been prepared and characterized.

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THE HYDROLYSIS OF SILK FIBROIN BY STEAM

EUNICE WALDE AND RACHEL EDGAR

Although steam is used in many of the processes of silk fabrication as well as in maintenance, the literature records nothing of the hydrolytic effects of steam on this protein.

The steam hydrolysis of silk has been followed by quantitative determination of the weight, nitrogen, and mechanical failure of the residual fibroin. Fabrics of mulberry silk fibroin and of wild silk fibroin have been exposed to dry steam at 15 to 85 pounds pressure for one hour and at 60 pounds pressure for 1 to 5 hours.

Wild silk has been shown less stable than mulberry silk to hydrolysis by steam. Mechanical failure of the fabric proved a much more sensitive indicator for the degradation than weight or nitrogen of the residual fibroin.

¹ See Raiford and Inman, *J. Am. Chem. Soc.*, 56, 1586 (1934) for references to important papers.

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