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The Effect of the Addition of Sodium Carbonate and Sodium Silicate on the Casting Properties of Clay Slip

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A VALENCE-NAME-FORMULA-SOLUBILITY CHART

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(ABSTRACT)

The chart includes the names and symbols of all the common radicals used in general chemistry courses arranged in a definite order according to valence. Each small rectangular space formed by horizontal and vertical lines including a positive and negative radical represents a compound and contains a symbol representing the solubility in grams per 100 grams of water at 18 degrees centigrade. Each large rectangular space represents compounds having a common type formula.

The primary purpose of the chart is to aid the student in acquiring speedily a working knowledge of valence, radicals and formula writing.

COE COLLEGE,
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THE EFFECT OF THE ADDITION OF SODIUM CARBONATE AND SODIUM SILICATE ON THE CASTING PROPERTIES OF CLAY SLIP

F. E. BROWN AND CHI-FANG LAI

(ABSTRACT)

The addition of small amounts of Na_2CO_3, or of Na_2Sio_3 increases the plasticity of some clay slips and permits them to be cast when they contain a much smaller percentage of water. This permits a much more rapid casting. Casts were made and removed from the mould in 20 minutes. The time for a cast increased for successive casts as the mould became filled with water. After drying the original rate was possible. A mixture of Na_2CO_3 and Na_2Sio_3 was found to be superior to either alone.

The use of these salts did not injure either the mould or the quality of the pieces cast. As many as 100 pieces were cast in one mould.

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