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Thermostad, the Antonym of Thermocline

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In standard oceanographic usage the suffix "-cline" denotes a layer in which there is a relatively large vertical gradient of the given property. However, oceanographers have no term available to denote the contrasting feature: a layer of water in which there is a relative minimum of the absolute value of the vertical gradient. As a result of discussing several possibilities with R. B. Montgomery and E. D. Stroup it is proposed that the suffix "-stad" be used to express this idea.

This suffix is derived from the Greek root $l\sigma\tau\eta\mu$, which means to make stand, to fix, or to set upright. The Greek word $\sigma\tau\acute{a}\delta\eta\nu$ (adverb) means upright.

For example, a layer in which the vertical gradient of temperature is a relative minimum would be denoted by the term *thermostad*. The 18-degree water of the western North Atlantic Ocean (Worthington 1959²) is a well-known example of a major permanent thermostad.

In similar fashion, layers with minimum vertical gradients of other properties may be denoted by terms with the suffix "-stad". Examples of such terms would be halostad, steristad, and oxystad.

Accepted for publication and submitted to press 25 December 1966.

I. Contribution No. 102 of Chesapeake Bay Institute and Department of Oceanography, The Johns Hopkins University. This study was supported by the Office of Naval Research through Contract Nonr 4010(11).

^{2.} Worthington, L. V. (1959): The 18° water of the Sargasso Sea. Deep-sea Res., 5: 297-305.