

## SOME CHARACTERISTICS OF OCEAN CIRCULATIONS IN THE SOUTH HEMISPHERE (ABSTRACT)

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The authors have in this paper studied the differences of ocean circulations between the South Pacific Ocean and the South Atlantic Ocean. The Subtropical gyre in the South Pacific reaches to higher latitude than that in the South Atlantic because the maximum westerlies in the South Pacific are at higher latitude than those in the South Atlantic.

The low latitude region of the South Pacific is considerably wider than that of the South Atlantic. Under the assumption of same current velocity in both low latitude regions, the western part of the low latitude region of the South Pacific accepts more effective heat energy transferred from atmosphere to surface water than that of the South Atlantic. Hence, the temperature of the western part of the tropical South Pacific is higher than of the western part of the South Atlantic.

From this analysis it is seen that the Subpolar gyre in the South Atlantic reaches further north than that in the South Pacific.

The fact that water temperature of the South Atlantic is lower than that of the South Pacific may be explained by the differences of the ranges of Subtropical and Subpolar gyres in both oceans and effective heat energy transferred from atmosphere to surface water in both tropical regions.

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