

## Seasonal and interannual variations of trace elements in a coral from the Java Sea

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The Indonesian seas play an important role in modulating the Indonesian throughflow (ITF), which may affect on variations of the El Nino/Southern Oscillation (ENSO) and Asian monsoon. It is also suggested that significant ITF variability is linked to changes in the freshwater budget of the western Indonesian seas and Southeast Asian monsoon winds. In this study, trace elements (Sr/Ca, Mg/Ca, Ba/Ca and U/Ca) as well as  $\delta^{18}\text{O}$  were measured for the period 1982 - 2002 with monthly resolution in a *Porites* coral collected from the north of Jakarta. Then, we assessed the potential of each trace element as a proxy for sea surface temperature (SST). Our results showed Sr/Ca ratio in the coral would be a most robust proxy for SST. In addition, the variation of  $\delta^{18}\text{O}$  of seawater, which is directly related to salinity, was estimated using  $\delta^{18}\text{O}$  and Sr/Ca data in the coral.