Antibacterial Activities and Negative Ion Generating Properties of Fabrics Dyed with Green Tea and Tourmaline

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Shirting fabrics were treated with green tea and tourmaline and their antibacterial activities against _Staphylococcus aureus_ and generating behavior of negative ions were investigated. The boiled down liquid of dry green tea was diluted 4- and 8-fold, A liquid and B liquid, to be used for dyeing. The number of the colonies of _Staphylococcus aureus_ and the generated negative ions were counted after the cloths dyed with A liquid and B liquid were treated with tourmaline and by heating at two different temperatures (80-90°C, 145-155°C). The number of the colonies and the negative ions increased with concentration of tourmaline. The thermal treatment at higher temperature promoted higher generation of negative ions. The cloths treated with not more than 0.2 % of tourmaline after dyeing A and B liquid and the ones only dyed with B liquid almost came up to the standard of bacteriostatic activity of 2.2. It is concluded that these experimental conditions are applicable to clothing life.

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