

Accepted Manuscript

The effect of pH on particle agglomeration and optical properties of nanoparticle suspensions

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PII: S0022-4073(18)30223-1
DOI: [10.1016/j.jqsrt.2018.07.020](https://doi.org/10.1016/j.jqsrt.2018.07.020)
Reference: JQSRT 6169



To appear in: *Journal of Quantitative Spectroscopy & Radiative Transfer*

Received date: 4 January 2018
Revised date: 13 June 2018
Accepted date: 27 July 2018

Please cite this article as: Layth Al-Gebory , M. Pinar Mengüç , The effect of pH on particle agglomeration and optical properties of nanoparticle suspensions, *Journal of Quantitative Spectroscopy & Radiative Transfer* (2018), doi: [10.1016/j.jqsrt.2018.07.020](https://doi.org/10.1016/j.jqsrt.2018.07.020)

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Highlights

- The effect of the pH value on the particle agglomeration behaviour and radiative transfer in the TiO₂ NPSs are investigated both experimentally and theoretically.
- The dependent/independent scattering and their boundaries are investigated and demarcated for different conditions.
- The effect of the particle size distribution on the scattering coefficient of NPSs is studied to account the effect of compact particle agglomerates.
- In comparison to the other parameters, the pH value was found to be a dominant effect on the dependent/independent scattering and on the radiative properties of NPSs.

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