

## Res. Asst. MERVE SÖNMEZ TUĞLUCA

### Personal Information

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### International Researcher IDs

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### Education Information

Doctorate, Hacettepe University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, Turkey 2021 - Continues

Postgraduate, Hacettepe University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, Turkey 2019 - 2021

Undergraduate, Abdullah Gul University, Mühendislik Fakültesi, İnşaat Mühendisliği, Turkey 2014 - 2019

### Dissertations

Postgraduate, Investigation of Performance Properties of Cement-Binder Systems With Microbial Self-Healing Ability, Hacettepe University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 2021

### Research Areas

Building materials

### Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Variation of microbial self-healing performance of cementitious composites with their biogranule content**  
SÖNMEZ TUĞLUCA M., ERŞAN Y. Ç., ŞAHMARAN M.  
CEMENT & CONCRETE COMPOSITES, 2024 (SCI-Expanded)
- II. **Bond properties and anisotropy performance of 3D-printed construction and demolition waste-based geopolymers: Effect of operational- and material-oriented parameters**  
Sönmez Tuğluca M., Şahmaran M., Ilcan H., Aminipour E., Aldemir A., Özkılıç H.  
JOURNAL OF BUILDING ENGINEERING, vol.78, no.107688, pp.107688-107696, 2023 (SCI-Expanded)
- III. **The effects of various operational- and materials-oriented parameters on the carbonation performance of low-quality recycled concrete aggregate**  
Dündar B., Tuğluca M., İLCAN H., ŞAHİN O., ŞAHMARAN M.  
Journal of Building Engineering, vol.68, 2023 (SCI-Expanded)
- IV. **Characterization of chemically treated waste wood fiber and its potential application in cementitious composites**  
Tuğluca M., ÖZDOĞRU E., İLCAN H., Özçelikci E., ULUGÖL H., ŞAHMARAN M.  
Cement and Concrete Composites, vol.137, 2023 (SCI-Expanded)
- V. **Production and compatibility assessment of denitrifying biogranules tailored for self-healing concrete applications**

Sönmez M., Erşan Y. Ç.

CEMENT & CONCRETE COMPOSITES, vol.126, 2022 (SCI-Expanded)

**VI. The effect of chemical- versus microbial-induced calcium carbonate mineralization on the enhancement of fine recycled concrete aggregate: A comparative study**

Sönmez M., Ilcan H., Dundar B., Yıldırım G., Erşan Y. Ç., Şahmaran M.

JOURNAL OF BUILDING ENGINEERING, vol.44, 2022 (SCI-Expanded)

## **Refereed Congress / Symposium Publications in Proceedings**

**I. Production of concrete compatible biogranules for self-healing concrete applications**

Sonmez M., ERŞAN Y. Ç.

7th International Conference on Concrete Repair, Concrete Solutions 2019, Cluj-Napoca, Romania, 30 September - 02 October 2019, vol.289, no.1002

## **Metrics**

Publication: 7

Citation (WoS): 1

Citation (Scopus): 8

H-Index (WoS): 1

H-Index (Scopus): 2