

BePatch : a film-based unified physiological sensor

Joong-Woo Ahn¹, Seung-Woo Noh¹, Chi Yul Yoon¹ and Hee Chan Kim^{2*}

1. Interdisciplinary Program, Bioengineering Major, Graduate School, Seoul National University, Seoul 151-742, Korea
2. Department of Biomedical Engineering, College of Medicine and Institute of Medical & Biological Engineering, Medical Research Center, Seoul National University, Seoul 110-744, Korea

E-mail : hckim@snu.ac.kr

Design of physiological sensors that meet both the fidelity of signal quality and user's compliance is an important issue for the embodiment of daily healthcare. Patch-type sensors have been regarded as good alternatives for this purpose. However, complexity of their hardware is ever increasing to incorporate multiple sensors. In this paper, a film-based single sensor that can concurrently measure the electrical and mechanical sources of human physiology is proposed. The electrodes of the normal piezoelectric sensor were engineered to have multiple sections thereby enabling acquisition of two distinct physical quantities. Two representative electromechanical signals of human, ECG and BCG, were measured for the demonstration and showed 60 percent of amplitude of the referenced signals.

References

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