

Detection of Volatile Organic Compounds by Analyses of Polymer-Coated Quartz Crystal Microbalance Sensor Arrays

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The responses of polymer-coated quartz crystal microbalance (QCM) sensors upon exposure to volatile organic compounds (VOCs) were studied under various operational conditions and were applied to the detection of VOCs by the response analyses of QCM sensor arrays. Three flexible polymers exhibited different responses and selectivities to four VOCs. The differences in sensitivity and responsivity produce response patterns for the classification and identification of VOC vapors.

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