4. Conclusions

Conductometric sensors based on TCAA-imprinted polymer have been developed under the optimum sensor technology, showing a good response to TCAA and other HAAs with desirable sensitivity and selectivity. The influence of ionic strength and pH on sensor response was found, however, the selective response of the sensor was attained for TCAA. The change in selectivity profile of the sensing elements when incorporated in sensor was also observed. The sensor derived from MSP-based MIP showed better cross-reactivities for selective response to HAAs than the sensor derived BP-based MIP. Moreover, the applicability of the sensor was proved by validation. The

results indicate that the sensor based on TCAA-imprinted MIP is applicable for screening of combinatorial mixtures of HAAs in drinking water. The fabrication of sensing material in sensor, as membrane, is easy, even if the mechanical property of the obtained membrane needs to be more improved to increase the strength in use of the sensor. The stability of the sensor is also good, in that its analytical performance is unchanged after being stored for more 3 months at room temperature. The present study demonstrated the specific use of the proposed sensor for the screening of HAAs in drinking water.

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