



2012年度 物質生命理工学科コロキウム

上智大学 理工学部 物質生命理工学科 主催（理工学部 共催）

Sensing for health using boronic acids

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8号館-309号室

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The ability to monitor analytes within physiological, environmental and industrial scenarios is of prime importance. Since recognition events occur on a molecular level, gathering and processing the information poses a fundamental challenge. Therefore robust chemical molecular sensors “chemosensors” with the capacity to detect chosen molecules selectively and signal this presence continue to attract considerable attention. Real-time monitoring of saccharides is of particular interest, such as D-glucose in blood. Towards that end the covalent coupling interaction between boronic acids and saccharides has been exploited with some success to monitor the presence of such saccharides. The boronic acid Lewis acid-base interaction is also suitable for the capture and recognition of anions. Anions are involved in fundamental processes in all living things. Our aim as synthetic chemists is to mimic nature’s level of sophistication in designing and producing chemosensors capable of determining the concentration of a target analytes (ie saccharides and anions) in any medium.

学生の聴講歓迎・申込不要・参加無料

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