



Integrated Photonic Digital PCR Techniques

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Message from the Guest Editors

Dear Colleagues,

PCR technology has developed over several decades and through three generations due to the utilization of various techniques. As the world has recently experienced COVID-19, PCR technology has become necessary for rapid and early diagnosis. Recently, quantitative analysis has become possible with the development of a fast molecular diagnosis and digital PCR, and the expectations of molecular diagnosis have increased as ultra-fast digital PCR technology has been developed using light energy and energy conversion technologies. Photonic digital PCR is a molecular analysis technique that enables the precise quantification and amplification of DNA or RNA molecules in a sample. This method offers exceptional sensitivity and accuracy by partitioning the sample into thousands of individual reaction volumes, each containing a limited number of target molecules.





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