Title:	Development of array photoacoustic transducer for angiogensis imaging
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Keywords:	array photoacoustic transducer angiogensis
Issue Date:	May-2023
Publisher:	IISER Mohali
Abstract:	Photoacoustic is a hybrid diagnostic modality where a pulse laser light is used to excite the hemoglobin in red blood cells under the skin to emit an ultrasound signal. Photoacoustic phenomena occurred at the molecular level and hold detailed relevant health-related physio- logical information. An ultrasound sensor is at the center of the photoacoustic experiment. The ultrasound transducer is an unavoidable component in non-invasive, non-destructive safe health monitoring technology both in adult and child care; gas, oil diagnosis, surveil- lance purpose, and many more to mention. Design and development of conventional PVDF need interdisciplinary infrastructure and skill set to obtain a satisfactory large bandwidth and sensitivity. A wide bandwidth transducer is one of the burning desires in photoacoustic and ultrasound-based diagnostic modalities. Considering this, we would like to develop a very large bandwidth (Fc 2MHz) ultrasound detector for photoacoustic experiments for sensing wide bandwidth acoustic signals from live blood vessels under a cancer model.
Description:	embargo period
URI:	http://hdl.handle.net/123456789/5410
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