

9th International THz-Bio Workshop



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Intraoperative diagnosis of human brain gliomas using THz spectroscopy and imaging

In this work, we study the THz optical properties of human brain gliomas ex vivo featuring WHO grades I to IV, as well as of perifocal regions comprised of intact and edematous tissues. The tissue specimens were characterized using the reflection-mode THz-pulsed spectroscopy and histology. The gelatin embedding of tissues allowed for sustaining their THz response unaltered for several hours, as compared to that of freshly excised tissues. We observed statistical difference between intact tissues and tumors.

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