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**Record 1 of 1****Title:** 155 nm-wideband and tunable q-switched fiber laser using an MXene Ti(3)C(2)T(X)coated microfiber based saturable absorber**Author(s):** Ahmad, H (Ahmad, H.); Ramli, R (Ramli, R.); Yusoff, N (Yusoff, N.); Samion, MZ (Samion, M. Z.); Ismail, MF (Ismail, M. F.); Bayang, L (Bayang, L.); Aidit, SN (Aidit, S. N.); Zamzuri, AK (Zamzuri, A. K.); Thambiratnam, K (Thambiratnam, K.)**Source:** LASER PHYSICS LETTERS **Volume:** 17 **Issue:** 8 **Article Number:** 085103 **DOI:** 10.1088/1612-202X/aba0bd **Published:** AUG 2020**Times Cited in Web of Science Core Collection:** 1**Total Times Cited:** 1**Usage Count (Last 180 days):** 19**Usage Count (Since 2013):** 19**Cited Reference Count:** 61**Abstract:** MXenes have recently gained significant research interest due to its graphene-like structure that allows for a multitude of applications such as electronics, batteries and optics to be realized. In this work, stable Q-switched pulses are passively obtained from a thulium-doped fiber laser using an MXene Ti(3)C(2)T(X)coated microfiber as a saturable absorber (SA). The generated pulses have center lasing wavelength 1976 nm with a pulse repetition rate and pulse width ranging between 16 kHz to 59 kHz and 13  $\mu$ s to 2.4  $\mu$ s respectively. The generated pulses can be tuned over a wavelength range of 155 nm from 1895 nm to 2050 nm. The MXene based SA has significant potential for generating pulsed laser outputs that will find uses in the areas of sensing, medicine and spectroscopy around the 'eye safe' 2  $\mu$ m region.**Accession Number:** WOS:000553932100001**Language:** English**Document Type:** Article**Author Keywords:** MXene; tunable; microfiber; Q-switched**KeyWords Plus:** GRAPHENE-OXIDE; ABSORPTION; MOSE2; NANOCOMPOSITES; MODULATION; YB**Addresses:** [Ahmad, H.; Ramli, R.; Yusoff, N.; Samion, M. Z.; Ismail, M. F.; Bayang, L.; Aidit, S. N.; Thambiratnam, K.] Univ Malaya, Photon Res Ctr, Kuala Lumpur 50603, Malaysia.

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