



# Document details

[Back to results](#) | 1 of 1

[Export](#) [Download](#) [Print](#) [E-mail](#) [Save to PDF](#) [Add to List](#) [More... >](#)

[Full Text](#) | View at Publisher

Laser Physics Letters  
Volume 7, Issue 9, 2010, Pages 673-676

## Multi-wavelength fiber laser in the S-band region using a Sagnac loop mirror as a comb generator in an SOA gain medium (Article)

Zulkifli, M.Z.<sup>a</sup>, Hassan, N.A.<sup>a</sup>, Awang, N.A.<sup>a</sup>, Ghani, Z.A.<sup>b</sup>, Harun, S.W.<sup>c</sup>, Ahmad, H.<sup>a</sup>

<sup>a</sup>Photonics Laboratory, Department of Physics, University of Malaya, 50603 Kuala Lumpur, Malaysia

<sup>b</sup>Faculty of Applied Sciences, MARA University of Technology, 40450 Shah Alam, Selangor, Malaysia

<sup>c</sup>Department of Electrical Engineering, Faculty of Engineering, University of Malaya, 50603 Kuala Lumpur, Malaysia

### Abstract

[View references \(27\)](#)

A simple design of multi-wavelength generation in the S-band region of the optical network transmission is proposed. The design consists of broad-band fiber Bragg grating (BB-FBG), which acts as a filter to enhance operation in the S-band region. A Sagnac loop mirror (SLM) is used to generate multiple wavelength oscillations in the ring cavity. The output consists of 60 lasing wavelengths oscillating simultaneously between 1464 nm and 1521 nm with a spacing of 0.92 nm and an output linewidth of 0.66 nm. © 2010 by Astro Ltd.

### SciVal Topic Prominence

Topic: Erbium-Doped Fiber | Ring Lasers | Thulium

Prominence percentile: 92.917

### Author keywords

[Fiber laser](#) [Sagnac loop mirror](#) [Semiconductor optical amplifier](#)

ISSN: 16122011  
Source Type: Journal  
Original language: English

DOI: 10.1002/lapl.201010046  
Document Type: Article

### References (27)

[View in search results format >](#)

All [Export](#) [Print](#) [E-mail](#) [Save to PDF](#) [Create bibliography](#)

1 Yamashita, S., Baba, T.

Spacing-tunable multiwavelength fibre laser

(2001) *Electronics Letters*, 37 (16), pp. 1015-1017. Cited 65 times.  
doi: 10.1049/el:20010690

[View at Publisher](#)

Metrics [View all metrics >](#)

45 Citations in Scopus

94th percentile

3.70 Field-Weighted Citation Impact



### PlumX Metrics

Usage, Captures, Mentions, Social Media and Citations beyond Scopus.

### Cited by 45 documents

Multi-wavelength SOA fiber laser based on NPR effect and NOLM | 基于NPR效应及NOLM的多波长SOA光纤激光器

Hao, H.-T. , Zhou, X.-F. , Cui, W.-X. (2020) *Guangdianzi Jiguang/Journal of Optoelectronics Laser*

Configurable triple wavelength semiconductor optical amplifier fiber laser using multiple broadband mirrors

Ahmad, H. , Azmy, N.F. , Azmi, A.N. (2020) *Microwave and Optical Technology Letters*

Switchable erbium-doped fiber laser (EDFL) using non-adiabatic microfiber

Salim, M.A.M. , Ali, N. , Azzuhri, S.R. (2019) *Optical Fiber Technology*

[View all 45 citing documents](#)

Inform me when this document is cited in Scopus:

[Set citation alert >](#)

### Related documents

Tunable and switchable multi-wavelength fiber laser based on semiconductor optical amplifier