

PCT Recordation of Search History

Case/PCT Application Number: PCT/US18/39541

CLIN Number/Technical Field of PCT Application: 006

Dates During Which the Search was Conducted: 22-23/08/2018

Date of Completion of Recordation of Search History Form: 23 August 2018
(23.08.2018)

Research Analyst Initials: BOF

Search Approval Official (SAO) Initials: BSS

Field of Search/Classification Information:

IPC(8) Classifications: G02B 5/18, 6/10, 6/12, 6/124, 6/13, 3/136, 6/30 (2018.01)

CPC Classifications: G02B 5/18, 5/1819, 5/1828, 5/1847, 5/1857, 5/1861, 5/1866,
6/0016, 6/0038, 6/0065, 6/124, 6/136, 6/30

Databases Searched (Patent and Non-Patent Literature (NPL), Including Sub-Databases and Files Searched) and Search Terms Used:

PatSeer (US, EP, WO, JP, DE, GB, CN, FR, KR, ES, AU, IN, CA, INPADOC Data);
Google Scholar; EBSCO Discovery Service; IP.com; Keywords: waveguide, grating,
coupler, period, uniform, chirp, etch, mask, pattern, stop, resist, duty cycle

Database Search String Recordation, Including Dates of Searches:

Patent Database Search Strategy/Results:

Patseer

ID	Search String	Records	Date
L20	TACD:(period* AND uniform* AND etch* AND (mask* OR pattern*) AND (stop* OR resist*)) AND TA:(waveguide* AND (grating* W4 couple*)) AND IC:(G02B5/18 OR G02B6/10 OR G02B6/12 OR G02B6/124 OR G02B6/13 OR G02B3/136 OR G02B6/30)	59	8/23/2018
L19	TACD:(period* AND uniform* AND etch* AND (mask* OR pattern*) AND (stop* OR resist*)) AND TA:(waveguide* AND (grating* W4 couple*)) AND CPC:(G02B5/18 OR G02B5/1819 OR G02B5/1828 OR G02B5/1847 OR G02B5/1857 OR G02B5/1861 OR G02B5/1866 OR G02B6/0016 OR G02B6/0038 OR G02B6/0065 OR G02B6/124 OR G02B6/136 OR G02B6/30)	48	8/23/2018
L18	TACD:(period* AND uniform* AND chirp* AND etch* AND (mask* OR pattern*) AND (stop* OR resist*)) AND TA:(waveguide* AND (grating* W4 couple*)) AND CPC:(G02B5/18 OR G02B5/1819 OR G02B5/1828 OR G02B5/1847 OR G02B5/1857 OR G02B5/1861 OR G02B5/1866 OR G02B6/0016 OR G02B6/0038 OR G02B6/0065 OR G02B6/124 OR G02B6/136 OR G02B6/30)	25	8/23/2018
L17	TACD:(period* AND uniform* AND chirp* AND etch* AND (mask* OR pattern*) AND (stop* OR resist*)) AND TA:(waveguide* AND (grating* W4 couple*)) AND IC:(G02B5/18 OR G02B6/10 OR G02B6/12 OR G02B6/124 OR G02B6/13 OR G02B3/136 OR G02B6/30)	27	8/23/2018
L16	TACD:(period* AND uniform* AND chirp* AND etch* AND (mask* OR pattern*) AND (stop* OR resist*)) AND TA:(waveguide* AND (grating* W4 couple*))	36	8/23/2018
L15	TAC:(etch* AND (mask* OR pattern*) AND (stop* OR resist*)) AND TACD:(period* AND uniform* AND chirp*) AND TA:(waveguide* AND (grating* W4 couple*))	2	8/23/2018
L14	TAC:(period* AND uniform* AND chirp*) AND TA:(waveguide* AND (grating* W4 couple*))	10	8/23/2018
L13	TA:(waveguide* AND (grating* W4 couple*) AND period* AND uniform*)	19	8/23/2018
L12	TA:(waveguide* AND (grating* W4 couple*) AND period*)	269	8/23/2018
L11	TA:(waveguide* AND (grating* W4 couple*))	2338	8/23/2018
L10	TA:(waveguide* AND grating* AND couple*)	5223	8/23/2018

L9	INV:(Chang You-Chia)	9	8/23/2018
L8	INV:(Roberts Samantha P)	0	8/23/2018
L7	INV:(Phare Christopher T)	0	8/23/2018
L6	INV:(Zadka Moshe)	24	8/23/2018
L5	INV:(Mohanty Asemma)	1	8/23/2018
L4	TA:(grating* AND couple*) AND INV:(Lipson Michal)	0	8/23/2018
L3	INV:(Lipson Michal)	203	8/23/2018
L2	TA:(waveguide* AND grating* AND couple*) AND ASN:(Columbia University)	0	8/23/2018
L1	ASN:(Columbia University)	3116	8/23/2018

Non-Patent Literature (NPL) Search Strategy/Results:

Google Scholar

Search terms	Date
waveguide grating coupler uniform chirped period	8/23/2018
waveguide grating coupler uniform chirped duty cycle	8/23/2018
waveguide grating coupler chirped duty cycle period etch mask	8/23/2018
waveguide grating coupler length period etch mask stop	8/23/2018

EBSCO Discovery Service

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waveguide grating coupler uniform chirped period	8/23/2018
waveguide grating coupler uniform chirped duty cycle	8/23/2018
waveguide grating coupler chirped duty cycle period etch mask	8/23/2018
waveguide grating coupler length period etch mask stop	8/23/2018

IP.com

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waveguide grating coupler chirped duty cycle period etch mask	8/23/2018
waveguide grating coupler length period etch mask stop	8/23/2018