{'id': 'https://openalex.org/W2083926174',

'doi': 'https://doi.org/10.1103/physrevb.6.4370',

'title': 'Optical Constants of the Noble Metals',

'display\_name': 'Optical Constants of the Noble Metals',

'publication\_year': 1972,

'publication\_date': '1972-12-15',

'ids': {'openalex': 'https://openalex.org/W2083926174',

'doi': 'https://doi.org/10.1103/physrevb.6.4370',

'mag': '2083926174'},

'language': 'en',

'primary\_location': {'is\_oa': False,

'landing\_page\_url': 'https://doi.org/10.1103/physrevb.6.4370',

'pdf\_url': None,

'source': {'id': 'https://openalex.org/S4210208989',

'display\_name': 'Physical review. B, Solid state',

'issn\_l': '0556-2805',

'issn': ['0556-2805'],

'is\_oa': False,

'is\_in\_doaj': False,

'host\_organization': 'https://openalex.org/P4310320261',

'host\_organization\_name': 'American Physical Society',

'host\_organization\_lineage': ['https://openalex.org/P4310320261'],

'host\_organization\_lineage\_names': ['American Physical Society'],

'type': 'journal'},

'license': None,

'license\_id': None,

'version': None,

'is\_accepted': False,

'is\_published': False},

'type': 'article',

'type\_crossref': 'journal-article',

'indexed\_in': ['crossref'],

'open\_access': {'is\_oa': False,

'oa\_status': 'closed',

'oa\_url': None,

'any\_repository\_has\_fulltext': False},

'authorships': [{'author\_position': 'first',

'author': {'id': 'https://openalex.org/A5046745038',

'display\_name': 'P. B. Johnson',

'orcid': None},

'institutions': [{'id': 'https://openalex.org/I107672454',

'display\_name': 'Dartmouth College',

'ror': 'https://ror.org/049s0rh22',

'country\_code': 'US',

'type': 'education',

'lineage': ['https://openalex.org/I107672454']}],

'countries': ['US'],

'is\_corresponding': False,

'raw\_author\_name': 'P. B. Johnson',

'raw\_affiliation\_strings': ['Department of Physics and Astronomy, Dartmouth College, Hanover, New Hampshire 03755']},

{'author\_position': 'last',

'author': {'id': 'https://openalex.org/A5080304823',

'display\_name': 'R. W. Christy',

'orcid': None},

'institutions': [{'id': 'https://openalex.org/I107672454',

'display\_name': 'Dartmouth College',

'ror': 'https://ror.org/049s0rh22',

'country\_code': 'US',

'type': 'education',

'lineage': ['https://openalex.org/I107672454']}],

'countries': ['US'],

'is\_corresponding': False,

'raw\_author\_name': 'R. W. Christy',

'raw\_affiliation\_strings': ['Department of Physics and Astronomy, Dartmouth College, Hanover, New Hampshire 03755']}],

'countries\_distinct\_count': 1,

'institutions\_distinct\_count': 1,

'corresponding\_author\_ids': [],

'corresponding\_institution\_ids': [],

'apc\_list': None,

'apc\_paid': None,

'has\_fulltext': True,

'fulltext\_origin': 'ngrams',

'cited\_by\_count': 17539,

'cited\_by\_percentile\_year': {'min': 99, 'max': 100},

'biblio': {'volume': '6',

'issue': '12',

'first\_page': '4370',

'last\_page': '4379'},

'is\_retracted': False,

'is\_paratext': False,

'primary\_topic': {'id': 'https://openalex.org/T13531',

'display\_name': 'Quantum Size Effects in Metallic Nanostructures',

'score': 0.9997,

'subfield': {'id': 'https://openalex.org/subfields/3107',

'display\_name': 'Atomic and Molecular Physics, and Optics'},

'field': {'id': 'https://openalex.org/fields/31',

'display\_name': 'Physics and Astronomy'},

'domain': {'id': 'https://openalex.org/domains/3',

'display\_name': 'Physical Sciences'}},

'topics': [{'id': 'https://openalex.org/T13531',

'display\_name': 'Quantum Size Effects in Metallic Nanostructures',

'score': 0.9997,

'subfield': {'id': 'https://openalex.org/subfields/3107',

'display\_name': 'Atomic and Molecular Physics, and Optics'},

'field': {'id': 'https://openalex.org/fields/31',

'display\_name': 'Physics and Astronomy'},

'domain': {'id': 'https://openalex.org/domains/3',

'display\_name': 'Physical Sciences'}},

{'id': 'https://openalex.org/T13049',

'display\_name': 'Characterization of Surface Roughness in Optical Components',

'score': 0.9993,

'subfield': {'id': 'https://openalex.org/subfields/2206',

'display\_name': 'Computational Mechanics'},

'field': {'id': 'https://openalex.org/fields/22',

'display\_name': 'Engineering'},

'domain': {'id': 'https://openalex.org/domains/3',

'display\_name': 'Physical Sciences'}},

{'id': 'https://openalex.org/T12039',

'display\_name': 'Surface Analysis and Electron Spectroscopy Techniques',

'score': 0.9985,

'subfield': {'id': 'https://openalex.org/subfields/2508',

'display\_name': 'Surfaces, Coatings and Films'},

'field': {'id': 'https://openalex.org/fields/25',

'display\_name': 'Materials Science'},

'domain': {'id': 'https://openalex.org/domains/3',

'display\_name': 'Physical Sciences'}}],

'keywords': [{'id': 'https://openalex.org/keywords/thin-film-analysis',

'display\_name': 'Thin Film Analysis',

'score': 0.535177},

{'id': 'https://openalex.org/keywords/roughness-measurement',

'display\_name': 'Roughness Measurement',

'score': 0.503489}],

'concepts': [{'id': 'https://openalex.org/C192562407',

'wikidata': 'https://www.wikidata.org/wiki/Q228736',

'display\_name': 'Materials science',

'level': 0,

'score': 0.65370613},

{'id': 'https://openalex.org/C544778455',

'wikidata': 'https://www.wikidata.org/wiki/Q753',

'display\_name': 'Copper',

'level': 2,

'score': 0.6209568},

{'id': 'https://openalex.org/C133386390',

'wikidata': 'https://www.wikidata.org/wiki/Q184996',

'display\_name': 'Dielectric',

'level': 2,

'score': 0.5989311},

{'id': 'https://openalex.org/C2777855556',

'wikidata': 'https://www.wikidata.org/wiki/Q4339544',

'display\_name': 'Annealing (glass)',

'level': 2,

'score': 0.592034},

{'id': 'https://openalex.org/C204323151',

'wikidata': 'https://www.wikidata.org/wiki/Q905424',

'display\_name': 'Range (aeronautics)',

'level': 2,

'score': 0.49836612},

{'id': 'https://openalex.org/C2776029896',

'wikidata': 'https://www.wikidata.org/wiki/Q3935810',

'display\_name': 'Relaxation (psychology)',

'level': 2,

'score': 0.48778754},

{'id': 'https://openalex.org/C65682993',

'wikidata': 'https://www.wikidata.org/wiki/Q1056451',

'display\_name': 'Reflection (computer programming)',

'level': 2,

'score': 0.48151788},

{'id': 'https://openalex.org/C158355884',

'wikidata': 'https://www.wikidata.org/wiki/Q11388',

'display\_name': 'Infrared',

'level': 2,

'score': 0.46865147},

{'id': 'https://openalex.org/C86453669',

'wikidata': 'https://www.wikidata.org/wiki/Q940391',

'display\_name': 'Free electron model',

'level': 3,

'score': 0.4670965},

{'id': 'https://openalex.org/C26873012',

'wikidata': 'https://www.wikidata.org/wiki/Q214781',

'display\_name': 'Condensed matter physics',

'level': 1,

'score': 0.3913846},

{'id': 'https://openalex.org/C120665830',

'wikidata': 'https://www.wikidata.org/wiki/Q14620',

'display\_name': 'Optics',

'level': 1,

'score': 0.38584238},

{'id': 'https://openalex.org/C184779094',

'wikidata': 'https://www.wikidata.org/wiki/Q26383',

'display\_name': 'Atomic physics',

'level': 1,

'score': 0.37542692},

{'id': 'https://openalex.org/C113196181',

'wikidata': 'https://www.wikidata.org/wiki/Q485223',

'display\_name': 'Analytical Chemistry (journal)',

'level': 2,

'score': 0.36144513},

{'id': 'https://openalex.org/C121332964',

'wikidata': 'https://www.wikidata.org/wiki/Q413',

'display\_name': 'Physics',

'level': 0,

'score': 0.19824901},

{'id': 'https://openalex.org/C185592680',

'wikidata': 'https://www.wikidata.org/wiki/Q2329',

'display\_name': 'Chemistry',

'level': 0,

'score': 0.122612715},

{'id': 'https://openalex.org/C49040817',

'wikidata': 'https://www.wikidata.org/wiki/Q193091',

'display\_name': 'Optoelectronics',

'level': 1,

'score': 0.113073766},

{'id': 'https://openalex.org/C191897082',

'wikidata': 'https://www.wikidata.org/wiki/Q11467',

'display\_name': 'Metallurgy',

'level': 1,

'score': 0.06981769},

{'id': 'https://openalex.org/C520434653',

'wikidata': 'https://www.wikidata.org/wiki/Q38867',

'display\_name': 'Laser',

'level': 2,

'score': 0.061729282},

{'id': 'https://openalex.org/C15744967',

'wikidata': 'https://www.wikidata.org/wiki/Q9418',

'display\_name': 'Psychology',

'level': 0,

'score': 0.0},

{'id': 'https://openalex.org/C77805123',

'wikidata': 'https://www.wikidata.org/wiki/Q161272',

'display\_name': 'Social psychology',

'level': 1,

'score': 0.0},

{'id': 'https://openalex.org/C43617362',

'wikidata': 'https://www.wikidata.org/wiki/Q170050',

'display\_name': 'Chromatography',

'level': 1,

'score': 0.0},

{'id': 'https://openalex.org/C41008148',

'wikidata': 'https://www.wikidata.org/wiki/Q21198',

'display\_name': 'Computer science',

'level': 0,

'score': 0.0},

{'id': 'https://openalex.org/C159985019',

'wikidata': 'https://www.wikidata.org/wiki/Q181790',

'display\_name': 'Composite material',

'level': 1,

'score': 0.0},

{'id': 'https://openalex.org/C199360897',

'wikidata': 'https://www.wikidata.org/wiki/Q9143',

'display\_name': 'Programming language',

'level': 1,

'score': 0.0}],

'mesh': [],

'locations\_count': 1,

'locations': [{'is\_oa': False,

'landing\_page\_url': 'https://doi.org/10.1103/physrevb.6.4370',

'pdf\_url': None,

'source': {'id': 'https://openalex.org/S4210208989',

'display\_name': 'Physical review. B, Solid state',

'issn\_l': '0556-2805',

'issn': ['0556-2805'],

'is\_oa': False,

'is\_in\_doaj': False,

'host\_organization': 'https://openalex.org/P4310320261',

'host\_organization\_name': 'American Physical Society',

'host\_organization\_lineage': ['https://openalex.org/P4310320261'],

'host\_organization\_lineage\_names': ['American Physical Society'],

'type': 'journal'},

'license': None,

'license\_id': None,

'version': None,

'is\_accepted': False,

'is\_published': False}],

'best\_oa\_location': None,

'sustainable\_development\_goals': [],

'grants': [],

'datasets': [],

'versions': [],

'referenced\_works\_count': 36,

'referenced\_works': ['https://openalex.org/W1657876279',

'https://openalex.org/W1966496052',

'https://openalex.org/W1966569101',

'https://openalex.org/W1967254445',

'https://openalex.org/W1967928368',

'https://openalex.org/W1971219905',

'https://openalex.org/W1976742910',

'https://openalex.org/W1977595307',

'https://openalex.org/W1977667596',

'https://openalex.org/W1978630389',

'https://openalex.org/W1989549858',

'https://openalex.org/W2008421092',

'https://openalex.org/W2011609347',

'https://openalex.org/W2013698229',

'https://openalex.org/W2016043581',

'https://openalex.org/W2023584596',

'https://openalex.org/W2026992615',

'https://openalex.org/W2033211052',

'https://openalex.org/W2043194460',

'https://openalex.org/W2052382227',

'https://openalex.org/W2058050706',

'https://openalex.org/W2058478698',

'https://openalex.org/W2063549609',

'https://openalex.org/W2074843191',

'https://openalex.org/W2076928220',

'https://openalex.org/W2081413618',

'https://openalex.org/W2082812831',

'https://openalex.org/W2087453474',

'https://openalex.org/W2088533390',

'https://openalex.org/W2090007791',

'https://openalex.org/W2092708391',

'https://openalex.org/W2121252431',

'https://openalex.org/W2127356000',

'https://openalex.org/W2299103258',

'https://openalex.org/W4240136850',

'https://openalex.org/W4252303867'],

'related\_works': ['https://openalex.org/W3205471791',

'https://openalex.org/W2949962545',

'https://openalex.org/W2899642399',

'https://openalex.org/W2607335390',

'https://openalex.org/W2374614594',

'https://openalex.org/W2077617624',

'https://openalex.org/W2031506955',

'https://openalex.org/W2007878581',

'https://openalex.org/W1981851659',

'https://openalex.org/W1543318594'],

'ngrams\_url': 'https://api.openalex.org/works/W2083926174/ngrams',

'abstract\_inverted\_index': {'The': [0, 34, 57, 81, 103, 124],

'optical': [1, 41, 105],

'constants': [2],

'$n$': [3, 54],

'and': [4, 14, 18, 55, 66, 93, 108, 153],

'$k$': [5, 70],

'were': [6, 43, 89, 94],

'obtained': [7, 136],

'for': [8, 151],

'the': [9, 29, 47, 78, 84, 113, 116, 128, 132, 139, 149],

'noble': [10],

'metals': [11],

'(copper,': [12],

'silver,': [13],

'gold)': [15],

'from': [16, 112],

'reflection': [17],

'transmission': [19],

'measurements': [20, 42],

'on': [21],

'vacuum-evaporated': [22],

'thin': [23],

'films': [24],

'at': [25],

'room': [26],

'temperature,': [27],

'in': [28, 60, 68, 83, 101, 115],

'spectral': [30, 79],

'range': [31, 36, 86],

'0.5-6.5': [32],

'eV.': [33],

'film-thickness': [35, 85],

'was': [37, 62, 71, 135],

'185-500': [38],

'\\AA{}.': [39],

'Three': [40],

'inverted': [44],

'to': [45, 127],

'obtain': [46],

'film': [48],

'thickness': [49],

'$d$': [50, 61],

'as': [51, 53],

'well': [52],

'$k$.': [56],

'estimated': [58],

'error': [59],

'\\ifmmode\\pm\\else\\textpm\\fi{}': [63],

'2': [64],

'\\AA{},': [65],

'that': [67],

'$n$,': [69],

'less': [72],

'than': [73],

'0.02': [74],

'over': [75],

'most': [76],

'of': [77, 91, 131],

'range.': [80],

'results': [82, 114, 150],

'250-500': [87],

'\\AA{}': [88],

'independent': [90],

'thickness,': [92],

'unchanged': [95],

'after': [96],

'vacuum': [97],

'annealing': [98],

'or': [99],

'aging': [100],

'air.': [102],

'free-electron': [104, 140],

'effective': [106],

'masses': [107],

'relaxation': [109],

'times': [110],

'derived': [111],

'near': [117],

'infrared': [118],

'agree': [119],

'satisfactorily': [120],

'with': [121, 148, 164],

'previous': [122],

'values.': [123],

'interband': [125],

'contribution': [126],

'imaginary': [129],

'part': [130],

'dielectric': [133],

'constant': [134],

'by': [137],

'subtracting': [138],

'contribution.': [141],

'Some': [142],

'recent': [143, 159],

'theoretical': [144],

'calculations': [145],

'are': [146, 161],

'compared': [147, 163],

'copper': [152],

'gold.': [154],

'In': [155],

'addition,': [156],

'some': [157],

'other': [158],

'experiments': [160],

'critically': [162],

'our': [165],

'results.': [166]},

'cited\_by\_api\_url': 'https://api.openalex.org/works?filter=cites:W2083926174',

'counts\_by\_year': [{'year': 2024, 'cited\_by\_count': 348},

{'year': 2023, 'cited\_by\_count': 850},

{'year': 2022, 'cited\_by\_count': 1014},

{'year': 2021, 'cited\_by\_count': 1012},

{'year': 2020, 'cited\_by\_count': 1052},

{'year': 2019, 'cited\_by\_count': 1108},

{'year': 2018, 'cited\_by\_count': 1080},

{'year': 2017, 'cited\_by\_count': 1105},

{'year': 2016, 'cited\_by\_count': 1141},

{'year': 2015, 'cited\_by\_count': 1101},

{'year': 2014, 'cited\_by\_count': 1072},

{'year': 2013, 'cited\_by\_count': 1054},

{'year': 2012, 'cited\_by\_count': 963}],

'updated\_date': '2024-06-10T10:29:07.196811',

'created\_date': '2016-06-24'}