

James J O'brien

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Observation and analysis of a new $[14.26]0+ \hat{a} \leftarrow X 3\hat{1}\hat{a} \leftarrow 0+$ transition of WS, observed using intracavity laser spectroscopy with Fourier-transform detection. Journal of Molecular Spectroscopy, 2020, 374, 111378.	0.4	2
2	Intracavity laser spectroscopy with Fourier-transform detection of tungsten sulfide, WS: Analysis of the (1,0) band of the $[13.10] \hat{1} \hat{0} \hat{a} \leftarrow \hat{1} \hat{1} \hat{a} \leftarrow \hat{X} 3\hat{1}\hat{a} \leftarrow 0+$ transition. Journal of Molecular Spectroscopy, 2020, 372, 111349.	0.4	4
3	Rotational analysis of the $[15.1] A \hat{a} \leftarrow \hat{a} \leftarrow \hat{X} 3\hat{1}\hat{a} \leftarrow 0+$ transition of CuOH and CuOD observed at high resolution with Intracavity laser spectroscopy. Journal of Molecular Spectroscopy, 2019, 362, 8-13.	0.4	0
4	Mass-independent dunham analysis of the $[7.7] Y 2\hat{1}\hat{a} \leftarrow \hat{a} \leftarrow X 2\hat{1}$ and $[16.3] A 2\hat{1}\hat{a} \leftarrow \hat{a} \leftarrow X 2\hat{1}$ transitions of copper monoxide, CuO. Journal of Molecular Spectroscopy, 2019, 363, 111173.	0.4	0
5	Mass-independent Dunham analysis of the known electronic states of platinum sulfide, PtS, and analysis of the electronic field-shift effect. Journal of Chemical Physics, 2019, 151, 094303.	1.2	5
6	Mass-independent Dunham analysis of the $[13.8] \hat{1} \hat{0} \hat{a} \leftarrow \hat{a} \leftarrow 3/2 \hat{a} \leftarrow \hat{a} \leftarrow X 2\hat{1}3/2$ transition of platinum monochloride, PtCl, observed by intracavity laser spectroscopy: Periodic trends in the $M+X\hat{a} \leftarrow$ bonding model ($M\hat{a} \leftarrow = \hat{a} \leftarrow Ni, Pt; X\hat{a} \leftarrow = \hat{a} \leftarrow F, Cl$). Journal of Molecular Spectroscopy, 2019, 363, 111173.	0.4	0
7	Identification and characterization of two new electronic states of PtF: Analysis of the (2,1), (1,0), (0,0), (0,1), (1,2), and (0,2) bands of the $[15.8 \hat{a} \leftarrow + \hat{a} \leftarrow x] \hat{1} \hat{0} \hat{a} \leftarrow \hat{a} \leftarrow 5/2 \hat{a} \leftarrow B 2\hat{1}3/2$ transition. Journal of Molecular Spectroscopy, 2019, 355, 101-108.	0.4	6
8	The spin-forbidden $\hat{a} \leftarrow \hat{a} \leftarrow 4\hat{1}\hat{a} \leftarrow \hat{a} \leftarrow \hat{X} 2\hat{1}1/2$ transition of GeH detected in absorption using intracavity laser spectroscopy. Journal of Chemical Physics, 2018, 148, 204306.	1.2	11
9	Identification of two new excited electronic states of NiCl: Analyses of the (1,0) & (0,0) bands of the $[13.5] 2\hat{1}3/2 \hat{a} \leftarrow [0.16] A 2\hat{1}3/2$ and (0,0) band of the $[13.8] 2\hat{1}1/2 \hat{a} \leftarrow [0.38] X 2\hat{1}1/2$ transitions. Journal of Molecular Spectroscopy, 2017, 333, 36-41.	0.4	0
10	The near-infrared spectrum of NiCl: Analysis of vibrational components of system G and system H between $12,500 \text{ cm}^{-1}$ and $13,750 \text{ cm}^{-1}$. Journal of Molecular Spectroscopy, 2016, 321, 78-81.	0.4	1
11	Near-infrared spectrum of ZrF by intracavity laser absorption spectroscopy. Journal of Molecular Spectroscopy, 2015, 310, 68-71.	0.4	2
12	High resolution electronic spectroscopy of the $A 2\hat{1}\hat{a} \leftarrow \hat{a} \leftarrow X 2\hat{1}1/2$ transition of PtN. Journal of Chemical Physics, 2014, 141, 084304.	1.2	1
13	Reanalysis of the $[12.3] 2\hat{1}\hat{a} \leftarrow X 2\hat{1}3/2$, $[12.3] 2\hat{1}\hat{a} \leftarrow X 2\hat{1}1/2$, and $[12.3] 2\hat{1}\hat{a} \leftarrow B 2\hat{1}\hat{a} \leftarrow$ electronic transitions of nickel monochloride, NiCl. Journal of Molecular Spectroscopy, 2013, 292, 5-7.	0.4	3
14	Improved experimental line positions for the (1,1) band of the $b 1\hat{1}\hat{a} \leftarrow \hat{a} \leftarrow X 3\hat{1}\hat{a} \leftarrow$ transition of O ₂ . Journal of Molecular Spectroscopy, 2012, 273, 34-36.	0.4	3
15	The 5-0 overtone absorption spectrum of HCl. Journal of Molecular Spectroscopy, 2011, 265, 110-111.	0.4	4
16	Intracavity laser absorption spectroscopy of platinum fluoride, PtF. Journal of Molecular Spectroscopy, 2011, 265, 39-46.	0.4	12
17	The Pt ₂ (1,0) band of System VI in the near infrared by intracavity laser absorption spectroscopy. Journal of Chemical Physics, 2011, 134, 184304.	1.2	2
18	Spectroscopy of NiF by intracavity laser spectroscopy: Identification and analysis of the (1,0) band of the $[11.1] 2\hat{1}3/2 \hat{a} \leftarrow X 2\hat{1}3/2$ electronic transition. Journal of Molecular Spectroscopy, 2010, 259, 116-119.	0.4	5

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19	Intracavity laser absorption spectroscopy of platinum sulfide in the near infrared. Journal of Molecular Spectroscopy, 2010, 263, 78-81.	0.4	6
20	Spectroscopy of PtO by intra-cavity laser spectroscopy: Identification of the A30+ $\hat{\alpha}^{\epsilon}$ x1 electronic transition. Journal of Molecular Spectroscopy, 2009, 253, 73-76.	0.4	10
21	Laboratory measurements of the (2,0) B2 $\hat{\nu}^{\nu}$ 5/2-X2 $\hat{\nu}^{\nu}$ 5/2 transition of nickel hydride using intracavity laser absorption spectroscopy This article is part of a Special Issue on Spectroscopy at the University of New Brunswick in honour of Colan Linton and Ron Lees.. Canadian Journal of Physics, 2009, 87, 583-587.	0.4	3
22	Intracavity laser absorption spectroscopy of AuO: Identification of the B 2 $\hat{\nu}^{\nu}$ 3/2 transition. Journal of Molecular Spectroscopy, 2008, 252, 136-142.	0.4	11
23	Intracavity Laser Absorption Spectra of Nickel Hydride. Astrophysical Journal, 2008, 672, 722-725.	1.6	8
24	Intracavity laser absorption spectroscopy of AuO: Identification of the b4 $\hat{\nu}^{\nu}$ 3/2 $\hat{\alpha}^{\epsilon}$ X2 $\hat{\nu}^{\nu}$ 3/2 transition. Journal of Molecular Spectroscopy, 2007, 243, 37-42.	0.4	11
25	Fourier transform spectroscopy of NiCl: Identification of the [10.3] 4 $\hat{\nu}^{\nu}$ 1/2 state. Journal of Molecular Spectroscopy, 2006, 240, 64-68.	0.4	7
26	Spectroscopy of NiCl: Identification of the X2 $\hat{\nu}^{\nu}$ 1/2 state. Journal of Molecular Spectroscopy, 2006, 235, 271-274.	0.4	15
27	Spectroscopy of nickel chloride: Identification of the [15.0] 2 $\hat{\nu}^{\nu}$ 3/2 and [15.0] 2 $\hat{\nu}^{\nu}$ 5/2 states. Journal of Molecular Spectroscopy, 2006, 238, 42-48.	0.4	5
28	Laboratory Measurements of NiH by Intracavity Laser Absorption Spectroscopy. Astrophysical Journal, 2005, 621, 554-556.	1.6	16
29	Fourier transform spectroscopy of NiCl: identification of a [9.1] state. Journal of Molecular Spectroscopy, 2004, 225, 225-229.	0.4	17
30	Spectroscopy of AuO: Identification of the [10.7] $\hat{\nu}^{\nu}$ 3/2toX2 $\hat{\nu}^{\nu}$ 3/2Transition. Journal of Physical Chemistry A, 2004, 108, 11302-11306.	1.1	23
31	Fourier Transform and Intracavity Laser Spectroscopy of NiCl System H: Identification of a [12.3] 2 $\hat{\nu}^{\nu}$ 1/2+ State. Journal of Molecular Spectroscopy, 2002, 211, 93-98.	0.4	30
32	Intracavity Laser Spectroscopy of NiCl System G: Identification of a [13.0] 2 $\hat{\nu}^{\nu}$ 3/2 State. Journal of Molecular Spectroscopy, 2002, 211, 248-253.	0.4	32
33	Absorption spectra and absorption coefficients for methane in the 750 $\hat{\alpha}^{\epsilon}$ region obtained by intracavity laser spectroscopy. Journal of Quantitative Spectroscopy and Radiative Transfer, 2002, 75, 323-350.	1.1	25
34	Molecular Constants for the v=0, b1 $\hat{\nu}^{\nu}$ g+ Excited State of O2: Improved Values Derived from Measurements of the Oxygen A-Band Using Intracavity Laser Spectroscopy. Journal of Molecular Spectroscopy, 2001, 207, 99-103.	0.4	26
35	The Near-Infrared Transition of CuCl Observed by Intracavity Laser Spectroscopy. Journal of Molecular Spectroscopy, 2000, 199, 100-108.	0.4	25
36	Quantitative Intracavity Laser Spectroscopy Measurements with a Ti:sapphire Laser: Absorption Intensities for Water Vapor Lines in the 790 $\hat{\alpha}^{\epsilon}$ 800 nm Region. Journal of Molecular Spectroscopy, 1998, 192, 386-393.	0.4	30

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37	Intracavity laser absorption measurements at ultrahigh spectral resolution. Applied Optics, 1997, 36, 4062.	2.1	7
38	Absorption coefficients for the 727 nm band of methane at 77 K determined by intracavity laser spectroscopy. Astrophysics and Space Science, 1996, 236, 97-109.	0.5	5
39	Temperature and population measurements of $n = 2$ hydrogen atoms in H2RF discharges from $H\hat{I}\pm$ (Balmer) spectral profiles obtained by intracavity laser spectroscopy. Chemical Physics, 1995, 192, 355-365.	0.9	3
40	Laboratory measurements of absorption coefficients for the 727 nm band of methane at 77 K and comparison with results derived from spectra of the Giant planets. Journal of Quantitative Spectroscopy and Radiative Transfer, 1995, 54, 607-619.	1.1	19
41	$H\hat{I}\pm$ (Balmer) spectral profiles obtained from H2 rf plasma discharges studied by intracavity laser spectroscopy. Chemical Physics Letters, 1994, 227, 1-5.	1.2	4
42	Intensity measurements of methane lines in the 727 nm band studied by intracavity laser spectroscopy at temperatures down to 77 K. Chemical Physics Letters, 1994, 229, 29-34.	1.2	9
43	Measurement of pressure-broadening and lineshift coefficients at 77 and 296 K of methane lines in the 727 NM band using intracavity laser spectroscopy. Journal of Quantitative Spectroscopy and Radiative Transfer, 1994, 52, 75-87.	1.1	14