

James J O'brien

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Intracavity Laser Spectroscopy of NiCl System G: Identification of a $[13.0] 2\hat{1}3/2$ State. Journal of Molecular Spectroscopy, 2002, 211, 248-253.	0.4	32
2	Quantitative Intracavity Laser Spectroscopy Measurements with a Ti:sapphire Laser: Absorption Intensities for Water Vapor Lines in the 790-800 nm Region. Journal of Molecular Spectroscopy, 1998, 192, 386-393.	0.4	30
3	Fourier Transform and Intracavity Laser Spectroscopy of NiCl System H: Identification of a $[12.3] 2\hat{1}\xi+$ State. Journal of Molecular Spectroscopy, 2002, 211, 93-98.	0.4	30
4	Molecular Constants for the $v=0, b1\hat{1}\xi_g+$ Excited State of O ₂ : 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
5	The Near-Infrared Transition of CuCl Observed by Intracavity Laser Spectroscopy. Journal of Molecular Spectroscopy, 2000, 199, 100-108.	0.4	25
6	Absorption spectra and absorption coefficients for methane in the 750-800 nm region obtained by intracavity laser spectroscopy. Journal of Quantitative Spectroscopy and Radiative Transfer, 2002, 75, 323-350.	1.1	25
7	Spectroscopy of AuO: Identification of the $[10.7] \hat{1}3/2$ to $X2\hat{1}3/2$ Transition. Journal of Physical Chemistry A, 2004, 108, 11302-11306.	1.1	23
8	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
9	Fourier transform spectroscopy of NiCl: identification of a $[9.1]$ state. Journal of Molecular Spectroscopy, 2004, 225, 225-229.	0.4	17
10	Laboratory Measurements of NiH by Intracavity Laser Absorption Spectroscopy. Astrophysical Journal, 2005, 621, 554-556.	1.6	16
11	Spectroscopy of NiCl: Identification of the $X2\hat{1}1/2$ state. Journal of Molecular Spectroscopy, 2006, 235, 271-274.	0.4	15
12	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
13	Intracavity laser absorption spectroscopy of platinum fluoride, PtF. Journal of Molecular Spectroscopy, 2011, 265, 39-46.	0.4	12
14	Intracavity laser absorption spectroscopy of AuO: Identification of the $b4\hat{1}3/2$ to $X2\hat{1}3/2$ transition. Journal of Molecular Spectroscopy, 2007, 243, 37-42.	0.4	11
15	Intracavity laser absorption spectroscopy of AuO: Identification of the $B 2\hat{1}\xi^+ \hat{1}3/2$ transition. Journal of Molecular Spectroscopy, 2008, 252, 136-142.	0.4	11
16	The spin-forbidden $\langle i \rangle a \langle i \rangle \hat{1}\xi^+ \hat{1}3/2$ to $\langle i \rangle X \langle i \rangle \hat{2}1/2$ transition of GeH detected in absorption using intracavity laser spectroscopy. Journal of Chemical Physics, 2018, 148, 204306.	1.2	11
17	Spectroscopy of PtO by intra-cavity laser spectroscopy: Identification of the $A30^+ \hat{1}\xi^+ x1$ electronic transition. Journal of Molecular Spectroscopy, 2009, 253, 73-76.	0.4	10
18	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

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19	Intracavity Laser Absorption Spectra of Nickel Hydride. <i>Astrophysical Journal</i> , 2008, 672, 722-725.	1.6	8
20	Intracavity laser absorption measurements at ultrahigh spectral resolution. <i>Applied Optics</i> , 1997, 36, 4062.	2.1	7
21	Fourier transform spectroscopy of NiCl: Identification of the [10.3] $4\tilde{1}^1_7/2$ state. <i>Journal of Molecular Spectroscopy</i> , 2006, 240, 64-68.	0.4	7
22	Intracavity laser absorption spectroscopy of platinum sulfide in the near infrared. <i>Journal of Molecular Spectroscopy</i> , 2010, 263, 78-81.	0.4	6
23	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] $\tilde{1}^1_0 \leftarrow \tilde{1}^1_5/2 \leftarrow \tilde{1}^1_5/2$ transition. <i>Journal of Molecular Spectroscopy</i> , 2019, 355, 101-108.	0.4	6
24	Absorption coefficients for the 727 nm band of methane at 77 K determined by intracavity laser spectroscopy. <i>Astrophysics and Space Science</i> , 1996, 236, 97-109.	0.5	5
25	Spectroscopy of nickel chloride: Identification of the [15.0] $2\tilde{1}^1_3/2$ and [15.0] $2\tilde{1}^1_5/2$ states. <i>Journal of Molecular Spectroscopy</i> , 2006, 238, 42-48.	0.4	5
26	Spectroscopy of NiF by intracavity laser spectroscopy: Identification and analysis of the (1,0) band of the [11.1] $2\tilde{1}^1_3/2 \leftarrow X 2\tilde{1}^1_3/2$ electronic transition. <i>Journal of Molecular Spectroscopy</i> , 2010, 259, 116-119.	0.4	5
27	Mass-independent Dunham analysis of the known electronic states of platinum sulfide, PtS, and analysis of the electronic field-shift effect. <i>Journal of Chemical Physics</i> , 2019, 151, 094303.	1.2	5
28	Mass-independent Dunham analysis of the [13.8] $\tilde{1}^1_0 \leftarrow \tilde{1}^1_3/2 \leftarrow \tilde{1}^1_3/2$ transition of platinum monochloride, PtCl, observed by intracavity laser spectroscopy: Periodic trends in the $M+X^{\tilde{1}}$ bonding model ($M \leftarrow \tilde{1}^1_0$, Pt; $X \leftarrow \tilde{1}^1_3/2$). <i>Journal of Chemical Physics</i> , 2019, 151, 094304.	1.2	5
29	$H\tilde{1}^1_{\pm}$ (Balmer) spectral profiles obtained from H2 rf plasma discharges studied by intracavity laser spectroscopy. <i>Chemical Physics Letters</i> , 1994, 227, 1-5.	1.2	4
30	The 5-0 overtone absorption spectrum of HCl. <i>Journal of Molecular Spectroscopy</i> , 2011, 265, 110-111.	0.4	4
31	Intracavity laser spectroscopy with Fourier-transform detection of tungsten sulfide, WS: Analysis of the (1,0) band of the [13.10] $\tilde{1}^1_0 \leftarrow \tilde{1}^1_3/2 \leftarrow \tilde{1}^1_3/2$ transition. <i>Journal of Molecular Spectroscopy</i> , 2020, 372, 111349.	0.4	4
32	Temperature and population measurements of $n = 2$ hydrogen atoms in H2RF discharges from $H\tilde{1}^1_{\pm}$ (Balmer) spectral profiles obtained by intracavity laser spectroscopy. <i>Chemical Physics</i> , 1995, 192, 355-365.	0.9	3
33	Laboratory measurements of the (2,0) $B2\tilde{1}^1_5/2 \leftarrow X2\tilde{1}^1_5/2$ 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.. <i>Canadian Journal of Physics</i> , 2009, 87, 583-587.	0.4	3
34	Improved experimental line positions for the (1,1) band of the $b 1\tilde{1}^1_1 \leftarrow X 3\tilde{1}^1_1$ transition of O2. <i>Journal of Molecular Spectroscopy</i> , 2012, 273, 34-36.	0.4	3
35	Reanalysis of the [12.3] $2\tilde{1}^1_3/2 \leftarrow X2\tilde{1}^1_3/2$, [12.3] $2\tilde{1}^1_3/2 \leftarrow X2\tilde{1}^1_1/2$, and [12.3] $2\tilde{1}^1_3/2 \leftarrow B2\tilde{1}^1_3/2$ electronic transitions of nickel monochloride, NiCl. <i>Journal of Molecular Spectroscopy</i> , 2013, 292, 5-7.	0.4	3
36	The Pt2 (1,0) band of System VI in the near infrared by intracavity laser absorption spectroscopy. <i>Journal of Chemical Physics</i> , 2011, 134, 184304.	1.2	2

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37	Near-infrared spectrum of ZrF by intracavity laser absorption spectroscopy. Journal of Molecular Spectroscopy, 2015, 310, 68-71.	0.4	2
38	Observation and analysis of a new $[14.26]0+ \hat{\epsilon} \times 3\hat{1}\hat{\epsilon}^0+$ transition of WS, observed using intracavity laser spectroscopy with Fourier-transform detection. Journal of Molecular Spectroscopy, 2020, 374, 111378.	0.4	2
39	High resolution electronic spectroscopy of the $A 2\hat{1}\hat{\epsilon}^{\sim} \hat{\epsilon}^{\sim} \times 2\hat{1}1/2$ transition of PtN. Journal of Chemical Physics, 2014, 141, 084304.	1.2	1
40	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
41	Identification of two new excited electronic states of NiCl: Analyses of the (1,0) & (0,0) bands of the $[13.5] 2\hat{1}^1_7/2 \hat{\epsilon}^{\sim} [0.16] A 2\hat{1}^5/2$ and (0,0) band of the $[13.8] 2\hat{1}1/2 \hat{\epsilon}^{\sim} [0.38] X 2\hat{1}1/2$ transitions. Journal of Molecular Spectroscopy, 2017, 333, 36-41.		0
42	Rotational analysis of the $[15.1] A \hat{\epsilon}^3 \hat{\epsilon}^{\sim}$ $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si5.svg"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mover accent="true"} \rangle \langle \text{mml:mi} \rangle X \langle \text{mml:mi} \rangle \langle \text{mml:mo stretchy="true"} \rangle \hat{\epsilon}^{\sim} 1/4 \langle \text{mml:mo} \rangle \langle \text{mml:mover} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle 1A \hat{\epsilon}^2$ transition of CuOH and CuOD observed at high resolution with Intracavity laser spectroscopy. Journal of Molecular Spectroscopy, 2019, 362, 8-13.	0.4	0
43	Mass-independent dunham analysis of the $[7.7] Y 2\hat{1}\hat{\epsilon}+ \hat{\epsilon}^{\sim} \times 2\hat{1}$ and $[16.3] A 2\hat{1}\hat{\epsilon}^{\sim} \hat{\epsilon}^{\sim} \times 2\hat{1}$ transitions of copper monoxide, CuO. Journal of Molecular Spectroscopy, 2019, 363, 111173.	0.4	0