

Klaus M. Pontoppidan

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Research interests

- Science policy and leadership
- Scientific development of astronomical space observatories and infrared instrumentation
- Initial conditions for the formation of extra-solar planets and their atmospheres
- Studies of molecular ices in molecular clouds, protostars, and planet-forming disks

Career

2024- Associate Directorate Scientist for Physics and Astronomy, Caltech/JPL
2023- Research Scientist, Caltech/JPL
2016-2023 Associate Astronomer w/ Tenure, Space Telescope Science Institute
2012-2016 Associate Astronomer, Space Telescope Science Institute
2010-2012 Assistant Astronomer, Space Telescope Science Institute
2009-2010 Senior postdoctoral fellow, California Institute of Technology
2006-2009 Hubble Fellow, California Institute of Technology
2005-2006 Postdoctoral fellow in Planetary Science, California Institute of Technology
2004-2005 Postdoctoral Scholar, Leiden University, Netherlands
2000-2004 Ph.D., Leiden University, Netherlands
1998-2000 M.Sc. Physics and Astronomy, University of Copenhagen, Denmark
1995-1998 B.Sc. Physics and Mathematics, University of Copenhagen, Denmark

Mission experience

- PRIMA Deputy Project Scientist (2023-)
- PRIMA Star- and Planet Formation Theme co-lead/CoI (2022-)
- PI/team lead for JWST First Images (2022)
- Planetary Origins and Evolution Multispectral Monochromator (POEMM) CoI (2021-)
- JWST Project Scientist at STScI (2018-2023)
- JWST Deputy Project Scientist at STScI (2015-2018)
- Origins Space Telescope Mission Study, planet-formation lead (2016-2020)
- SOFIA-HIRMES CoI (2016-2020)
- JWST-MIRI instrument scientist (2012-2015)
- JWST-NIRSpec instrument scientist (2010-2012)
- E-ELT METIS Science Team
- TMT International Science Definition Team

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Selected Press Coverage

2022- JWST image releases as Principal Investigator

- JWST's First images ([Deep Field](#), [Cosmic Cliffs](#), [Stephan's Quintet](#), [Southern Ring](#))
- [Tarantula Nebula](#)
- [Cartwheel Galaxy](#)
- [L1527 protostar](#)
- [Pillars of Creation](#)
- [Uranus](#) and [Neptune](#)
- [Arp 220 merger](#)
- [WR 124](#)
- [HH46 protostellar outflow](#)
- [Rho Ophiuchi cloud core](#) (JWST's first anniversary)
- [Serpens Core](#)

2022- Interviews/appearances in NY Times, Time Magazine, Nature, CNN, The Verge, PBS Nova, Netflix and many others, related to JWST.

2020 [Hubble sees flapping bat shadow](#)

2018 [NASA's Webb Telescope to Make a Splash in Search for Interstellar Water](#)

2014 [Infant solar system shows signs of windy weather - NRAO press release](#)

2009 [ESO Highlights of 2008](#)

2008 [Mind the gap: VLT hints at the presence of planets in young gas disks - ESO press release](#)

2008 [Water vapor detected in protoplanetary disks - Caltech press release](#)

2004 [Spitzer sees ice and warm glows in dark and dusty places](#)

Major observing programs

2023- CoPI on JDISCS, the largest JWST collaboration on protoplanetary disks, including data from >10 GO1-GO4 programs (**>350 hours**)

2022 PI on the JWST Early Release Observations (**120 hours**) and the Cycle 1 outreach imaging (**45 hours**)

2021 PI on JWST GO1 programs PID1549, PID1584, PID1611 (**56.7 hours**), Col on an additional 13 GO1-3 programs. Total award >\$1.0M.

2017 Col - JWST-ERS "IceAge: Chemical Evolution of Ices during Star Formation" - **30 hours**

2016 PI - VLT-VISIR Large Program "Protoplanetary disks as chemical factories: A spectroscopic survey of the thermo-chemical evolution of planet-forming regions" - **24 nights**

2010 PI - Herschel Space Observatory OT1: Cool Herschel/Hot Spitzer: The distribution of water in protoplanetary disks - **40 hours**

2008 Col - Herschel Space Observatory Open Time Key Program (PI Evans), "Dust, Ice and Gas in Time" - **250 hours**

2007 Co-PI - VLT-CRIRES large program (PI van Dishoeck) "The planet-forming zones of disks around solar-mass stars: a CRIRES evolutionary survey" - **27 nights**

Selected Awards

2024 JPL Team Award for PRIMA
2023 AAS Plenary Speaker Award
2022 AURA Science Achievement Award
2019 NASA Group Achievement Award for Astrophysics Large Mission Study Team
2017 STScI Achievement Award for JWST user documentation
2015 NASA Hubble 25th Anniversary Commendation to the Hubble Science Team
2014 STScI Personal Achievement Award for JWST ETC
2014 Tinsley Scholar, University of Texas Austin
2006 Hubble Fellowship
2004 FWN Researcher of the year, Leiden University

Mentoring

Postdocs:

- Dr. Andrea Banzatti (2013-2016)
- Dr. Tyler Pauly (2017-2020)
- Dr. Charles Poteet (2018-2020)
- Dr. Nicole Arulanantham (2023-2025)
- Dr. Mayank Narang (2025-)
- Mr. Aditya Arabhavi (2025-)

Graduate students:

- Dr. Isa Oliveira (now COO at Optimum Soluções).
- Dr. Rachel Smith (now Director Nature Research Center, NC Museum of Natural History + associate professor, Appalachian State University).
- Dr. Sandra Blevins (now civil servant at GSFC).
- Dr. Andrea Banzatti (now faculty at Texas Tech).
- Dr. Alexandra Lockwood (now communications lead for JWST at STScI)

Other students/postdocs:

- Jamila Pegues, Harvard University (STScI summer student)
- Dr. Ke (Coco) Zhang, Caltech (now faculty and University of Wisconsin)
- Dr. Jeanette Bast, Leiden University (now project manager at ESA)

Selected professional service

- AAS JPL Ambassador (2025-)
- Origins Space Telescope Science Technology and Definition Team
- Infrared Science Archive (IRSA) User Panel
- Referee for Nature Astronomy, the Astrophysical Journal, Astrophysical journal letters, Astronomy & Astrophysics, and the Astronomical Journal.
- NASA ROSES review panels 2012, 2014, 2015, 2017, 2020

Refereed Publications

As of August 2025: >161 papers, >12,474 citations, H-index = 64 ([full ADS list](#)).

1. *Science with PRIMA-FIRESS*
Pontoppidan et al. 2025, JATIS, in press
2. *PRIMA mission concept*
Glenn, Meixner, Bradford, **Pontoppidan** et al. 2025, JATIS, in press
3. *Cosmic cascades: How disk substructure regulates the flow of water to inner planetary systems*
Krijt et al. 2025, ApJL, in press
4. *A comprehensive analysis of rovibrational CO in the ERA of JWST*
Dickson-Vandervelde et al. 2025, AJ, 170, 130
5. *The JDISC Survey: Linking the physics and chemistry of inner and outer protoplanetary disk zones*
Arulanantham, Salyk, **Pontoppidan**, et al. 2025, AJ, 170, 67
6. *Cospatial ice mapping of H₂O with CO₂ and CO across a molecular cloud with JWST/NIRCam*
Smith et al. 2025, Nature Astronomy, 9, 883
7. *Coordinated space- and ground-based monitoring of accretion bursts in a protoplanetary disk: Establishing mid-infrared hydrogen lines as accretion diagnostics for JWST/MIRI*
Tofflemire, Manara, Banzatti, **Pontoppidan**, et al. 2025, ApJ, 985, 223
8. *The edge-on disk Tau 042021: Icy grains at high altitudes and a wind containing polycyclic aromatic hydrocarbons*
Dartois et al. 2025, A&A, 698, 8
9. *Characterizing the multiple protostellar system VLA 1623-2417 with JWST, ALMA, and VLA: Outflow Origins, dust growth, and an unsettled disk*
Radley et al. 2025, ApJ, 981, 187
10. *Emission from multiple molecular isotopologues in a high-inclination protoplanetary disk*
Salyk, **Pontoppidan**, Banzatti, et al. 2025, AJ, 169, 184
11. *Water in protoplanetary disks with JWST-MIRI: Spectral excitation atlas and radial distribution from temperature diagnostic diagrams and Doppler mapping*
Banzatti, Salyk, **Pontoppidan**, et al. 2025, AJ, 169, 165
12. *Smuggling unnoticed: Towards a 2D view of water and dust delivery to the inner regions of protoplanetary disks*
Houge et al. 2025, MNRAS, 537, 691
13. *The first JWST view of a 30-Myr-old protoplanetary disk reveals a late-stage carbon-rich phase*
Long, Pascucci, Houge, Banzatti, **Pontoppidan** et al., 2025, 978, 30
14. *Gone with the molecular wind: Photoevaporation in the compact dust disk around CX Tau*
Anderson, Williams, Blake, **Pontoppidan** et al., 2024, ApJ, 977, 213
15. *JWST/MIRI detection of a carbon-rich chemistry in the disk of a solar nebula analog*
Colmenares, Bergin, Salyk, **Pontoppidan**, et al., 2024, ApJ, 977, 173
16. *CORINOS. II. JWST-MIRI detection of warm molecular gas from an embedded disk-bearing protostar*
Salyk, Yang, **Pontoppidan**, et al., 2024, ApJ, 974, 97
17. *Retrieval of thermally resolved water vapor distributions in disks observed with JWST-MIRI*
Munoz-Romero, Banzatti, Oberg, **Pontoppidan**, et al., 2024, 975, 78
18. *Why are (almost) all the protostellar outflows aligned in Serpens Main?*
Green, **Pontoppidan**, Reiter, et al., 2024, ApJ, 972, 5
19. *Young stellar objects in NGC 346: A JWST NIRCam/MIRI Imaging Survey*
Habel et al., 2024, ApJ, 971, 108
20. *The asymmetric bipolar [Fe II] jet and H₂ outflow of TMC1A resolved with the JWST NIRSpec Integral Field Unit*
Assani et al., 2024, ApJ, 688, 26

21. *Retrievals of protoplanetary disk parameters using thermochemical models. I. Disk gas mass from hydrogen deuteride spectroscopy*
Seo et al., 2024, ApJ, 967, 131
22. *Mid-infrared spectrum of the disk around the forming companion GQ Lup B revealed by JWST/MIRI*
Cugno et al., 2024, 966, 21
23. *JWST MIRI MRS images of disk winds, water, and CO in an edge-on protoplanetary disk*
Arulanantham, McClure, **Pontoppidan** et al., 2024, ApJ, 965, 13
24. *JWST-MIRI spectroscopy of warm molecular emission and variability in the AS 209 disk*
Munoz-Romero, Oberg, Banzatti, **Pontoppidan** et al., 2024, ApJ, 694, 36
25. *High-contrast JWST-MIRI spectroscopy of planet-forming disks for the JDISC survey*
Pontoppidan et al., 2024, ApJ, 963, 158
26. *Far-infrared luminosity bursts trace mass accretion onto protostars*
Fischer et al., 2024, AJ, 167, 82
27. *Water-rich disks around late M stars unveiled: Exploring the remarkable case of Sz 114*
Xie, Pascucci, Long, **Pontoppidan** et al., 2023, 959, 25
28. *A JWST inventory of protoplanetary disk ices. The edge-on protoplanetary disk HH 48 NR, seen with the Ice Age ERS program*
Sturm et al. 2023, A&A, 679, 138
29. *Awesome SOSS: Transmission spectroscopy of WASP-96b with NIRISS/SOSS*
Radica et al., 2023, MNRAS, 524, 835
30. *JWST reveals excess cool water near the snowline in compact disks, consistent with pebble drift*
Banzatti, **Pontoppidan** et al., 2023, ApJ, 957, 22
31. *JWST peers into the class I protostar TMC1A*
Harsono et al. 2023, ApJ, 951, 32
32. *The James Webb Space Telescope Mission*
Gardner et al. 2023, PASP, 135, 8001
33. *JWST/NIRCam detections of dusty subsolar-mass young stellar objects in the Small Magellanic Cloud*
Jones et al., 2023, Nature Astronomy, 7, 694
34. *The science performance of JWST as characterized in commissioning*
Rigby et al., 2023, PASP, 135, 8001
35. *The kinematics and excitation of infrared water vapor emission from planet-forming disks*
Banzatti, **Pontoppidan** et al., 2023, AJ, 165, 72
36. *An Ice Age JWST inventory of dense molecular cloud ices*
McClure, Rocha, **Pontoppidan** et al. 2023, Nature Astronomy, 7, 431
37. *Discovery of dusty sub-solar mass young stellar objects in NGC 346 with JWST/NIRCam*
Jones et al. 2023, Nature Astronomy, in press
38. *The physical and chemical processes in protoplanetary disks*
Aikawa, Okuzumi, **Pontoppidan**, 2023, Comets III, in press
39. *CORINOS I: JWST/MIRI spectroscopy and imaging of a class 0 protostar IRAS 15398*
Yang, Green, **Pontoppidan** et al., 2022, ApJ, 941, 13
40. *Water and an escaping helium tail detected in the hazy and methane-depleted atmosphere of HAT-P-18b from JWST NIRISS/SOSS*
Fu et al., 2022, ApJ, 940, 35
41. *An unusual reservoir of water emission in the VV CrA protoplanetary disk*
Salyk, **Pontoppidan** et al., 2022, AJ, 164, 136
42. *The JWST Early Release Observations*
Pontoppidan et al., 2022, ApJ, 936, 14

43. *The science performance of JWST as characterized in commissioning*
Rigby et al, 2023, PASP, in press
44. *Scanning disk rings and winds in CO at 0.01-10 AU: A high-resolution M-band spectroscopy survey with IRTF-ISHELL*
Banzatti et al. 2022, AJ, 163, 174
45. *Linking ice and gas in the lambda Orionis Barnard 35A cloud*
Perotti et al. 2021, A&A, 650, 168
46. *Origins survey spectrometer: Revealing the hearts of distant galaxies and forming planetary systems with far-IR spectroscopy*
Bradford et al. 2021, JATIS, 7a1017B
47. *Origins space telescope: Trades and decisions leading to the baseline mission concept*
Leisawitz et al. 2021, JATIS, 7a1014L
48. *Origins space telescope science drivers to design traceability*
Meixner et al. 2021, JATIS, 7a1012M
49. *Heterodyne receiver for Origins*
Wiedner et al. 2021, JATIS, 7a1007w
50. *Origins Space Telescope: baseline mission concept*
Leisawitz et al., 2021, JATIS, 7a1002L
51. *Hints of icy pebble migration feeding and oxygen-rich chemistry in the inner planet-forming region of disks*
Banzatti et al. 2020, ApJ, 903, 124
52. *The evolution of disk winds from a combined study of optical and infrared forbidden lines*
Pascucci et al. 2020, ApJ, 903, 78
53. *Linking ice and gas in the Serpens low-mass star-forming region*
Perotti et al., 2020, A&A, 643, 48
54. *Variability of the Great Disk Shadow in Serpens*
Pontoppidan, Klaus, M.; Green, Joel D.; Pauly, Tyler A.; Salyk, Colette, DePasquale, Joseph, 2020, ApJ, 896, 169
55. *The Nitrogen Carrier in Inner Protoplanetary Disks*
Pontoppidan, Klaus, M.; Salyk, C.; Banzatti, A.; Blake, Geoffrey A.; Walsh, C.; Lacy, J. H.; Richter, M. J.
56. *Observing the linked depletion of dust and CO gas at 0.1–10 au in disks of intermediate-mass stars*
Banzatti, A.; Garufi, A.; Kama, M.; Benisty, M.; Brittain, S.; **Pontoppidan, K. M.**; Rayner, J., 2018, A&A, 609, 2
57. *PandExo: A Community Tool for Transiting Exoplanet Science with JWST & HST*
Batalha, Natasha E.; Mandell, Avi; **Pontoppidan, Klaus**; Stevenson, Kevin B.; Lewis, Nikole K.; Kalirai, Jason; Earl, Nick; Greene, Thomas; Albert, Loïc; Nielsen, Louise D., 2017, PASP, 129, 4501
58. *Two-dimensional ice mapping of molecular cores*
Noble, J. A.; Fraser, H. J.; **Pontoppidan, K. M.**; Craigon, A. M., 2017, MNRAS, 467, 4753
59. *The Depletion of Water During Dispersal of Planet-forming Disk Regions*
Banzatti, A.; **Pontoppidan, K. M.**; Salyk, C.; Herczeg, G. J.; van Dishoeck, E. F.; Blake, G. A., 2017, ApJ, 834, 152
60. *Mass Measurements in Protoplanetary Disks from Hydrogen Deuteride*
McClure, M. K.; Bergin, E. A.; Cleeves, L. I.; van Dishoeck, E. F.; Blake, G. A.; Evans, N. J., II; Green, J. D.; Henning, Th.; Öberg, K. I.; **Pontoppidan, K. M.**; Salyk, C., 2016, ApJ, 831, 167
61. *The abundance and thermal history of water ice in the disk surrounding HD 142527 from the DIGIT Herschel Key Program*
Min, M.; Bouwman, J.; Dominik, C.; Waters, L. B. F. M.; **Pontoppidan, K. M.**; et al., 2016, ApJ, 593, 11

62. *Measurements of water surface snow lines in classical protoplanetary disks*
Blevins, S. M., **Pontoppidan K. M.**, Banzatti, A., Zhang, K., Najita, J. R., Carr, J. S., Salyk, C., Blake, G. A., 2016, ApJ, 818, 22
63. *Resolved gas cavities in transitional disks inferred from CO isotopologs with ALMA*
van der Marel, N., van Dishoeck, E. F., Bruderer, S., Andrews, S. M., **Pontoppidan, K. M.**, Herczeg, G. J., van Kempen, T., Miotello, A., 2016, A&A, 585, 58
64. *Thirty Meter Telescope Detailed Science Case*
Skidmore, W. et al., 2015, Research in Astronomy and Astrophysics, 15, 1945
65. *Direct imaging of the water snow line at the time of planet formation using two ALMA continuum bands* Banzatti, A., Pinilla, P., Ricci, L., **Pontoppidan, K. M.**, Birnstiel, T., Ciesla, F., 2015, 815, 15
66. *Testing particle trapping in transition disks with ALMA*
Pinilla, P., van der Marel, N., Perez, L. M., van Dishoeck, E. F., Andrews, S., Birnstiel, T., Herczeg, G., Pontoppidan, K. M., van Kempen T., 2015, A&A, 584, 16
67. *Spectroscopic constraints in CH₃OH formation: CO mixed with CH₃OH ices towards young stellar objects*
Penteado, E. M., Boogert, A. C. A., Pontoppidan, K. M., Ioppolo, S., Blake, G. A., Cuppen, H. M., 2015, MNRAS, 454, 531
68. *Heterogeneity in 12CO/13CO abundance ratios toward solar-type young stellar objects*
Smith, R. L., **Pontoppidan, K. M.**, Young, E. D., Morris, M. R., 2015, ApJ, 813, 120
69. *Detection of water vapor in the terrestrial planet forming region of a transition disk*
Salyk, C., Lacy, J. H., Richter, M. J., Zhang, K., Blake, G. A., **Pontoppidan, K. M.**, 2015, ApJ, in press
70. *An empirical sequence of gap opening in protoplanetary disks revealed by rovibrational CO*
Banzatti, A. & **Pontoppidan, K. M.**, 2015, ApJ, 809, 167
71. *The mid-infrared instrument for the James Webb Space Telescope, X: Operations and Data Reduction* Gordon, K. D., et al. 2015, PASP, 127, 696
72. *Dimming and CO absorption toward the AA Tau protoplanetary disk: An inflating flow caused by disk instability?*
Zhang, K., Crockett, N., Salyk, C., **Pontoppidan, K.**, et al., 2015, ApJ, 805, 55
73. *Depletion of molecular gas by an accretion outburst in a protoplanetary disk*
Banzatti, A., **Pontoppidan, K. M.**, Bruderer, S., Muzerolle, J. et al., 2015, ApJ, 798, 16
74. *Signatures of warm carbon monoxide in protoplanetary discs observed with Herschel SPIRE*
van der Wiel, M. H. D., Naylor, D. A., Kamp, I., Menard, F. et al., 2014, MNRAS, 444, 3911
75. *Emission from water vapor and absorption from other gases at 5-7.5 micron in Spitzer-IRS spectra of protoplanetary disks*
Sargent, B. A., Forrest, W., Watson, D. M., D'Alessio, P. et al.
76. *ALMA observations of the T Tauri binary system AS 205: Evidence for molecular winds and/or binary interaction*
Salyk, C., **Pontoppidan, K.**, Corder, S., Munoz, D., Zhang, K., Blake, G. A., 2014, 792, 68
77. *The chemistry of planet-forming regions is not interstellar*
Pontoppidan, K. M., 2014, Faraday Discussions, 169, 49
78. *UV-to-MIR monitoring of DR Tau: Exploring how water vapor in the planet formation region is affected by stellar accretion variability*
Banzatti, A., Meyer, M. R., Manara, C. F., **Pontoppidan, K. M.**, Testi, L., 2014, ApJ, 780, 26
79. *Volatiles in protoplanetary disks*
Pontoppidan, K. M., Salyk, C., Bergin, E. A., Brittain, S. et al., 2014, PPVI chapter
80. *A survey of H₂O, CO₂ and CO ice features toward background stars and low-mass young stellar objects using AKARI*
Noble, J. A., Fraser, H. J., Aikawa, Y., **Pontoppidan, K. M.**, Sakon, I., 2013, ApJ, 775, 85

81. *VLT-CRIRES survey of rovibrational CO emission from protoplanetary disks*
Brown, J. M., **Pontoppidan, K. M.**, van Dishoeck, E. F., Herczeg, G. J. et al., 2013, ApJ, 770, 94
82. *Measuring protoplanetary disk accretion with HI Pfund beta*
Salyk, C., Herczeg, G., Brown, J. M. Blake, G. A., **Pontoppidan, K. M.**, van Dishoeck, E. F., 2013, ApJ, 769, 21
83. *Vertical settling and radial segregation of larger dust grains in the circumstellar disks of the butterfly star*
Grafe, C., Wolf, S., Guilloteau, S., Dutrey, A., Stapelfeldt, K. R., **Pontoppidan, K. M.**, Sauter, J., 2013, A&A, 553, 69
84. *The HCN-water ratio in the planet formation of region of disks*
Najita, J. R., Carr, J. S., **Pontoppidan, K. M.**, Salyk, C., van Dishoeck, E. F., Blake, G. A. 2013, ApJ, 766, 134
85. *Anomalous CO₂ ice toward HOPS-68: A tracer of protostellar feedback*
Poteet, C. A., **Pontoppidan, K. M.**, Megeath, S. T., Watson, D. M., Isokoski, K., Bjorkman, J. E., Sheehan, P. D., Linnartz, H., 2013, ApJ. 766, 117
86. *The radial abundance structure of water vapor in the TW Hya protoplanetary disk*
Zhang, K., **Pontoppidan, K. M.**, Salyk, C., Blake, G. A., 2013, ApJ, 766, 82
87. *An old disk still capable of forming a planetary system*
Bergin, E. A., Cleeves, L. I., Gorti, U., Zhang, K., Blake, G. A., Green, J. D., Andrews, S. M., Evans N. J., Henning, T., Oberg, K., Pontoppidan, K. M., Qi, C., Salyk, C., van Dishoeck, E., 2013, Nature, 493, 644
88. *The physical structure of protoplanetary disks in the Serpens cluster*
Oliveira, I., Merin, B., **Pontoppidan, K. M.**, van Dishoeck, E. F., 2013, ApJ, 762, 128
89. *CO₂ ice toward low-luminosity embedded protostars: Evidence for episodic mass accretion via chemical history*
Kim, H. J., Evans, N. J., Dunham, M. M., Lee, J.-E., Pontoppidan, K. M., 2012, ApJ 758, 38
90. *Water in star-forming regions with Herschel: highly excited molecular emission from the NGC 1333 IRAS 4B outflow*
Herczeg, G. J., Karska, A., Bruderer, S., Kristensen, L. E., van Dishoeck, E. F., Jorgensen, J. K., Visser, R., Wampfler, S. F., Bergin, E. A., Yildiz, U. A., **Pontoppidan, K. M.**, Gracia-Carpio, J., 2012, A&A, 540, 84
91. *AKARI observations of ice absorption bands towards edge-on young stellar objects*
Aikawa, Y., Kamuro, D., Sakon, I., Itoh, Y., Terada, H., Noble, J. A., **Pontoppidan, K. M.**, Fraser, H. J., Tamura, M., Kandori, R., Kawamura, A., Uena, M., 2012, A&A, 538, 57
92. *A 30 AU radius CO gas hole in the disk around the Herbig Ae star Oph IRS 48*
Brown, J. M., Herczeg, G. J., **Pontoppidan, K. M.**, van Dishoeck, E. F., 2012, ApJ, 744, 116
93. *The Spitzer ice legacy: Ice evolution from cores to protostars*
Oberg, K. I., Boogert, A. C. A., **Pontoppidan, K. M.**, van den Broek, S., van Dishoeck, E. F., Bottinelli, S., Blake, G. A., Evans, N. J., 2011, ApJ, 740, 109
94. *Disks and outflows in CO rovibrational emission from embedded, low-mass young stellar objects*
Herczeg, G. J., Brown, J. M., van Dishoeck, E. F., **Pontoppidan, K. M.**, A&A, 533, 112
95. *On the evolution of dust mineralogy, from protoplanetary disks to planetary systems*
Oliveira, I., Olofsson, J., **Pontoppidan, K. M.**, van Dishoeck, E. F., Augereau, J.-C., Merin, B., 2011, ApJ, 734, 51
96. *The structure and dynamics of molecular gas in planet-forming zones: A CRIRES spectro-astrometric survey*
Pontoppidan, K. M., Blake, G. A., Smette, A., 2011, ApJ, 733, 84
97. *A Spitzer survey of mid-infrared molecular emission from protoplanetary disks. II. Correlations and local thermal equilibrium models*
Salyk, C. **Pontoppidan, K. M.**, Blake, G. A., Najita, J. R., Carr, J. S., 2011, ApJ, 731, 130

98. *Warm dust resolved in the cold disk around T Chamaeleontis with VLTI/AMBER*
Olofsson, J., Benisty, M., Augereau, J.-C., Pinte, C., Menard, F., Tatulli, E., Berger, J.-P., Malbet, F., Merin, B., van Dishoeck, E. F., Lacour, S., **Pontoppidan, K. M.**, Monin, J.-L., Brown, J. M., Blake, G. A., 2011, A&A, 528, 6
99. *Astronomical oxygen isotopic evidence for supernova enrichment of the solar system birth environment by propagating star formation*
Young, E. D., Gounelle, M., Smith, R., L., Morris, M. R., **Pontoppidan, K. M.**, 2011, ApJ, 729, 43
100. *Single peaked CO emission line profiles from the inner regions of protoplanetary disks*
Bast, J. E., Brown, J. M., Herczeg, G. J., van Dishoeck, E. F., **Pontoppidan, K. M.**, 2011, A&A, 527, 119
101. *Observational constraints on submillimeter dust opacity*
Shirley, Y. L., Huard, T. L., **Pontoppidan, K. M.**, Wilner D. J., Stutz, A. M., Bieging, J. H., Evans, N. J., II, 2011, ApJ, 728, 143
102. *Fundamental vibrational transition of CO during the outburst of EX Lupi in 2008*
Goto, M., Regaly, Zs, Dullemond, C. P., van den Ancker, M., Brown, J. M., Carmona, A., **Pontoppidan, K.** (12 additional authors), 2011, ApJ, 728, 5
103. *VLT/X-shooter spectroscopy of a dusty planetary nebula discovered with Spitzer/IRS*
Oliveira, I., Overzier, R. A., **Pontoppidan, K. M.**, van Dishoeck, E. F., Spezzi, L., 2011, A&A, 526, 41
104. *Spectrally resolved pure rotational lines of water in protoplanetary disks*
Pontoppidan, K. M., Salyk, C., Blake, G. A., Kaufl, H.-U., 2010, 722, 173
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