

# Inspec Content and Coverage

Trusted content paired with expert indexing to support enhanced discovery and precision analytics.

[theiet.org/inspec](https://theiet.org/inspec)

# IET Inspec

IET Inspec is a scientific and technical database for subject-specific and interdisciplinary research in the global fields of engineering, physics and computer science. Inspec is an authoritative publisher-neutral resource covering more than 50 years of scientific and technological developments, with article-level indexing for true precision research.

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1969 Inspec computerised production system

1970 Magnetic tape service

1973 Inspec available via first vendor DIALOG

1987 Chemical & Numerical indexing introduced

1993 Winner Best Information Product Award for Data Quality

1998 SilverPlatter offers site licences

2004 Inspec Archive

2008 10m records launch of Inspec Direct

2009 40th anniversary

2016 Inspec 2 program

2018 Launch of Inspec Analytics

2019 Inspec Analytics Winner of Best New Product in The Charleston Advisor Awards

& 50th anniversary

2021 Launch of Inspec Analytics Plus

## Coverage overview

Physics



13.8m+ records

Electrical Engineering and Electronics



10.4m+ records

Computers and Control



8.7m+ records

Mechanical and Production Engineering



4.0m+ records

1969 to date  
25 million records



or 1898 with the Archive  
optional archive adds another  
873,701 records



Preprints



438,000 records



4,500+ journals

plus 12,000 inactive journals

from 500 global publishers

Since 2017, over

30%

Open Access

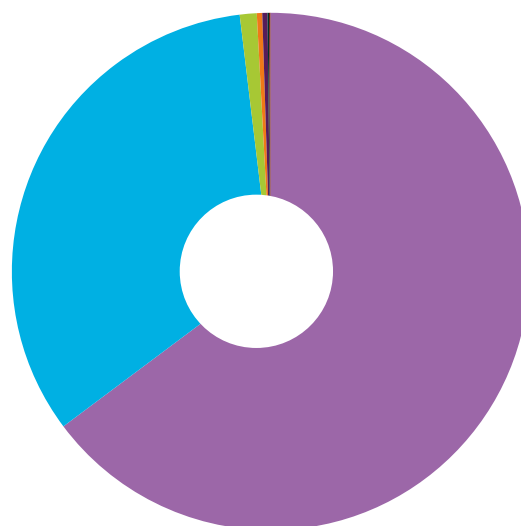
Over **30%**  
of all content  
indexed in Inspec  
since 2017 is



# Content types

## Inspec content types

Journals	66%
Conferences	33%
Preprints	1.7%
Reports	<1%
Books	<1%
Dissertations	<1%
Standards	<1%



## Journals

International peer-reviewed research and review journals that publish within the subject scope of Inspec can be considered for inclusion in the database.

Minimum selection criteria are as follows:

- Clearly relevant subject matter
- Have a regular publication schedule
- Have an established Editorial Board
- Have an ISSN number
- Contain peer-reviewed articles
- Contain English-language content (Title + Abstract minimum requirement)

If a journal is accepted, Inspec coverage generally commences from the first issue received from the publisher. Inspec can discuss the supply and indexing of journal back numbers published the start of the year during which indexing begins.

## Conferences

Conference papers, presentations and other related materials can include critical, early-stage research information before it is published in journal literature. Conferences therefore provide an important information source for Inspec.

Published literature from conferences, symposia, seminars, colloquia, workshops and conventions worldwide which have a peer-review selection process and publish full-text papers can be included. Conference proceedings should not be submitted more than a year after the conference took place.

## Trade journals

Regularly published publications covering a specific area of interest, industry, trade or business topics within the overall scope of Inspec can be included. Only feature articles and technical papers will be indexed.

## Books

Inspec includes academic books that are in scope within the major subject areas of physics, engineering, computing and technology.

Publishers can contact the Inspec Publisher Relations team directly to discuss the evaluation of relevant publications.

Suggestions from individuals regarding book submissions will not be considered, as Inspec deals directly with publishers regarding book content.

## Other content

Also included in Inspec are:

- Multimedia Dissertations
- Reports
- Standards
- Patents (1968-1976, in electrical engineering only)

# Content selection

## Objective evaluation

Inspec is publisher-neutral, focusing on a 50+ year remit to deliver quality content to a wide range of research communities within the overall content coverage scope.

## Title evaluation process

The research landscape is constantly changing and Inspec keeps pace with this rapid change through a constant process to identify and evaluate relevant content.

Content evaluation is conducted by the Inspec Publisher Relations & Content Development teams, with input from Inspec Subject Matter Experts, who are extremely experienced in assigning and creating the unique Inspec precision indexing and classification system for their area of scientific focus.

## Ongoing evaluation

Inspec ensures that the database covers the most relevant content to reflect the current scientific research landscape. Quality standards of publications also need to be monitored. This means that as well as evaluating new titles and content types for inclusion, titles are also at times removed.

## Open Access coverage



Inspec was an early adopter of indexing Open Access journals and as of 4.5 million as of 2024 which have been published as Open Access. Approximately a third of all new content indexed in Inspec since 2017 is Open Access.

Inspec's active title list includes over 650 fully Open Access journals, as categorised by the Directory of Open Access Journals (DOAJ), plus many hybrid titles that contain Open Access items.

### DOIs extend accessibility:

Over 80% of Inspec records contain Digital Object Identifiers (DOIs) for fast linking to source articles, including fully-accessible open articles and papers (subject to publisher access conditions).

**4.5 million+**

Open Access  
journal articles

**925,000+**

Open Access  
Conference items

**438,000+**

Preprints

# Precision indexing

Inspec's experienced indexers are subject experts, ensuring that all content in Inspec is accurately and rigorously classified. With subject classification codes, controlled terms, treatment codes, patent classification codes, and specialist indexing (including astronomical, chemical, and numerical indexes) to form the Inspec value-add record.

## Inspec subject classification codes

The Inspec subject classification creates a hierarchical breakdown of the subjects covered in the database and assigns a code to each subject. There are 3,500+ classification codes which can be used to focus your search on specific subject areas within Inspec.

Unlike other discovery and analytics tools, Inspec allows you to drill down through up to five levels of subject classification, giving you unparalleled insights.

Additional information about the Inspec classification codes can be found on subsequent pages of this document.

## Inspec controlled terms

The Inspec thesaurus is a terminology based subject index containing 10,000+ controlled terms. Within the scope of their coverage the controlled terms are interrelated to allow the retrieval of information related to very specific topics, or to broaden a search through the addition of extra terms.

## Inspec treatment codes

These codes indicate the approach taken to a subject by the author of a source document. More than one code can be applied to an Inspec record and they are particularly useful for filtering results to documents written in a particular style by the author:

<b>A</b>	<b>Applications:</b> assigned when a document describes the actual technique, computer programme or physical effect where some specific application is described or envisaged.
<b>B</b>	<b>Bibliography or literature survey:</b> indicates documents containing bibliography or significant number of references.
<b>E</b>	<b>Economic aspects or market survey:</b> applied where the document deals with some economic or commercial aspects, e.g. cost, pricing, market forecast, etc.
<b>G</b>	<b>General or review article:</b> this code distinguishes documents which give an overall view of a subject. It includes general approaches, overviews state-of-the art reviews and introductory articles.
<b>N</b>	<b>New developments:</b> used where a claim of novelty, in the patent sense, might be made.
<b>P</b>	<b>Practical:</b> indicates that the document is meant to be of different practical use and so is likely to be of use to engineering and design staff.
<b>R</b>	<b>Product review (1985 onwards):</b> applied to product comparisons, tables and buyers' guides. Treatment code P is also assigned to all documents where R is applied.
<b>T</b>	<b>Theoretical/mathematical:</b> assigned where the treatment and/or subject matter is generally theoretical or mathematical.
<b>X</b>	<b>Experimental:</b> used for documents describing an experimental method, observation or result. Includes apparatus for use in experiment work and calculations on experimental results.

## Patent classification codes

Inspec classification codes and controlled terms have been mapped to the relevant International Patent Classification (IPC) and Cooperative Patent Classification (CPC). As a result, IPC and CPC have been accurately assigned to relevant records back to 1969. This is a valuable tool for prior art searchers. It provides a method for the ready clustering of non-patent literature information that is relevant to patents, using familiar classification systems that and providing interoperability with other data sources.

*Although searchable throughout Inspec, IPC codes remain the copyright of WIPO.*

## Specialist indexing

Specialised indexing in Inspec allows efficient discovery and retrieval of all records matching search criteria within a given range – overcoming the challenge of finding matching records due to the variety of ways in which an author may express a particular value.

### Astronomical Object Indexing

Search for items related to specific astronomical objects, using catalogue designations including name-based acronyms; constellation-based and positional information to pinpoint accurate results.

### Chemical Indexing

Search for inorganic chemical substances and material systems. Using Inspec's chemical indexing helps to overcome search problems associated with the variety of ways that chemical information can be represented in scientific literature.

### Numerical Indexing

Search for numerical data that is important to the theme of a document. Overcome search problems that result from the lack of standardisation in the way numerical quantities can be expressed.

## Precision indexing for precision recall

### Human curation

All material within Inspec is indexed and classified using the renowned Inspec thesaurus and classification scheme.

Inspec's indexers understand that similar terminology doesn't always signify the same research field or context. This domain expertise ensures the highest quality indexing, which powers accurate discovery and insights users can trust.

### Annual updates keep pace with research

The Inspec thesaurus and classification are reviewed annually. New terms that cover important new areas of study can be added. Existing terms that describe areas of study that are no longer relevant can be discontinued. This ensures that Inspec indexes remain relevant for searching scientific and technological research and changes in the focus of research as they develop.

# Inspec classifications

The Inspec subject classifications provide a hierarchical breakdown of the subjects covered in the database and assigns a code to each subject. There are 3,500+ unique classification codes which can be used to focus your search on specific subject areas within Inspec.

## Example of the classification hierarchy:

Electrical Engineering & Electronics  
 Magnetism and Superconducting Magnetic Materials  
 Superconducting Magnetic Materials & Devices  
 Superconducting Devices  
 Superconducting Coils & Magnets

Classification codes begin with A, B, C or E

## Section A - Physics

- General [A00]
- The physics of elementary particles and fields [A10]
- Nuclear physics [A20]
- Atomic and molecular physics [A30]
- Fundamental areas of phenomenology [A40]
- Fluids, plasmas and electric discharges [A50]
- Condensed matter: structure, thermal and mechanical properties [A60]
- Condensed matter: electronic structure, electrical, magnetic, and optical properties [A70]
- Cross-disciplinary physics and related areas of science and technology [A80]
- Geophysics, astronomy and astrophysics [A90]

## Section C - Computers and Control

- General and management topics [C00]
- Systems and control theory [C10]
- Control technology [C30]
- Numerical analysis and theoretical computer topics [C40]
- Computer hardware [C50]
- Computer software [C60]
- Computer applications [C70]

## Section B - Electrical Engineering and Electronics

- General topics, engineering mathematics and materials science [B00]
- Circuit theory and circuits [B10]
- Components, electron devices and materials [B20]
- Magnetic and superconducting materials and devices [B30]
- Optical materials and applications, electro-optics and optoelectronics [B40]
- Electromagnetic fields [B50]
- Communications [B60]
- Instrumentation and special applications [B70]
- Power systems and applications [B80]

## Section E - Mechanical and Production Engineering

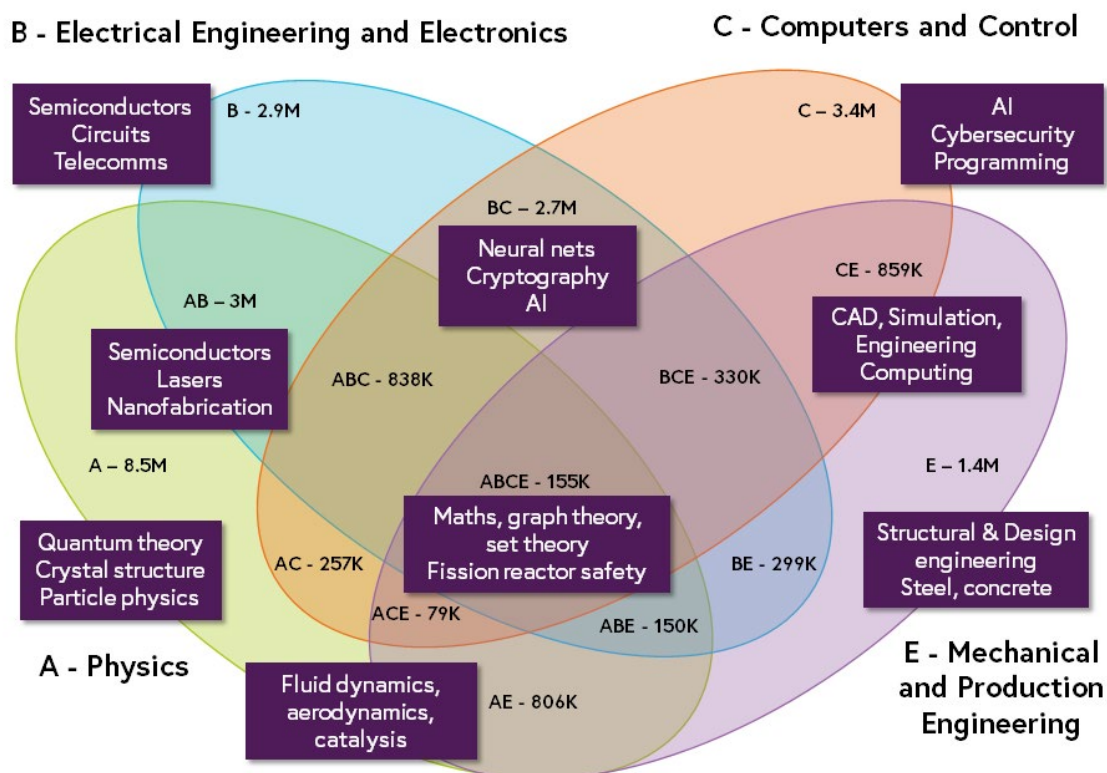
- General topics in manufacturing and production engineering [E00]
- Manufacturing and production [E10]
- Engineering mechanics [E20]
- Industrial sectors [E30]

Section E can be used to search for information related to Manufacturing and production engineering back to 1969. Mechanical engineering information can be searched back to 2005.



## Classifying interdisciplinary content

Articles are often assigned multiple classifications, to reflect the interdisciplinary nature of research. This detailed, article-level indexing supports enhanced discovery and analytics - allowing users to filter search criteria to uncover relevant content quickly and easily.



## Inspec Archive

### Explore 70 years of ground-breaking research to shape the future

Extend your research further across the Inspec Archive, containing content back to 1898. Optional archive adds a further 837,701 records to the Inspec database. Trace the development of critical inventions and scientific innovations since the first emergence of the subjects themselves.

- Original and updated classification and indexing to enable easy content discovery
- Value-added indexing fields, such as controlled terms, classification codes, and treatment type
- Early records include longer, more discursive abstracts (and often diagrams or data tables)

Access to historic content helps students and researchers understand how academic thought has changed over time and provides insights that can be applied to current endeavors.

# Enhanced discovery

## Document-level discovery

Inspec indexes items at an article level, not a publication level, ensuring that content is discoverable to a wide range of researchers across interdisciplinary topics.

Human curation ensures that only items of scientific value are selected for Inspec.

## Searchable document types

The complete list of document types indexed in Inspec since 1969 is as follows:

- Book
- Book Chapter
- Conference Paper
- Conference Paper in Journal
- Conference Paper in Journal (Original Abstracted)
- Conference Paper in Journal (Translation Abstracted)
- Conference Posters
- Conference Presentations (Video)
- Conference Proceedings
- Conference Proceedings in Journal
- Conference Proceedings in Journal (Original Abstracted)
- Conference Proceedings in Journal (Translation Abstracted)
- Dissertation
- Journal Paper
- Journal Paper (Original Abstracted)
- Journal Paper (Translation Abstracted)
- Patent
- Preprint
- Report
- Report Section
- Standard
- Videos

The search options relating to these document types may vary depending on which platform is used to access Inspec. Only items of scientific or technical relevance are selected and Inspec does not index items such as obituaries, editorials, and letters.

# Inspec Analytics

Understand your place in the global research landscape and make strategic decisions about the direction of your projects with a dynamic research intelligence tool based on the IET's renowned Inspec database.

The precise indexing for content in Inspec powers Inspec Analytics, our dynamic and intuitive research intelligence tool. Inspec Analytics utilizes powerful semantic mapping to identify trends and patterns across the global research that is indexed in Inspec.

**34,000+**  
organisations

Monitor the research output for your organisation and compare trends with collaborators and competitors.

**3,500+**  
subject classifications

Explore our subject classifications to identify global trends for high-level research areas or niche fields.

**10,000+**  
controlled terms

Discover emerging topics, find collaboration opportunities and identify relevant publications.

## Inspec Analytics

Engineering is global and increasingly multi-disciplinary - so it can be a challenge to identify the next hot topic of research or a distinct competitive advantage.

Inspec Analytics enables research professionals to explore beyond the literature in Inspec to uncover trends and patterns that were previously locked away, across a wide range of physics and engineering disciplines at both local and global levels.

Inspec Analytics uses semantic technology to connect each element of the literature indexed in the core database, e.g. author, organisation, publication, date, subject keywords etc. to create the Inspec knowledge graph.

Inspec Analytics allows you to navigate this map of science to identify and compare research trends across thousands of organisations and scientific concepts.

**Inspec Analytics is included with the Inspec subscription.**

## Inspec Analytics Plus

Uncover deeper insights into the impact of global research with an enhanced Inspec Analytics experience. Additional features in Inspec Analytics Plus allow you to explore the research landscape around the elements most valuable to you:

- **Deepen your understanding of global scientific trends:** Citation metrics for thousands of scientific concepts let you compare and contrast the impact of emerging global research trends.
- **Define the scope of your research project to maximise your impact:** Plan your projects to maximise their contribution to the research community by exploring highly cited topics, collaborators and publishing opportunities.
- **Assess your organisation's impact:** Gain deeper insights into your organisation's performance within specific research areas, benchmarked against the global landscape.
- **Evaluate the success of collaborative partnerships and Knowledge Transfer initiatives:** Monitor and compare the results of collaborative partnerships and projects for over 34,000 organisations.
- **Focus your efforts to accelerate your funding search:** Assess which organisations have funded the most research in your chosen discipline and where this is increasing over time.

**Inspec Analytics Plus can be added to existing or new Inspec subscriptions.**

# Sample record 1

## A novel three-dimensional Ag nanoparticles/reduced graphene oxide microtubular field effect transistor sensor for NO<sub>2</sub> detections

**Inspec Accession No:** 20092829

**Document type:** Journal Paper

**Inspec Issue:** 2020-047

**MIN:** ET07-C0041-A036

**Author(s):**

Weijie Yin <sup>(1)</sup>   Jingye Sun <sup>(1)</sup>   Yang Zhang <sup>(1)</sup>   Ying Zhang <sup>(1)</sup>   Shasha Li <sup>(1)</sup>   Mingqiang Zhu <sup>(1)</sup>  
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**Journal:** Nanotechnology, vol. 32, no. 2, p. 025304 (9 pp.)

**Publication Date:** 8 Jan. 2021

**Publisher:** IOP Publishing, UK

**ISSN:** 0957-4484 (print)

**JIN:** ET07

**CODEN:** NNOTER

**CCCC:** 1361-6528/20/025304+9/\$33.00

**DOI:** [10.1088/1361-6528/abbca8](https://doi.org/10.1088/1361-6528/abbca8)

**Language:** English

**Abstract:** A novel three-dimensional (3D) microtubular NO<sub>2</sub> field effect transistor (FET) sensor has been fabricated from 2D reduced graphene oxide (rGO) nanosheets decorated with Ag nanoparticles, by applying the self-roll-up technique. The electrical properties of 2D and 3D Ag NP/rGO FET sensors have been investigated and compared. Finally, the performance of the 3D sensors has been demonstrated, where the preliminary results show that our 3D Ag NP/rGO FET NO<sub>2</sub> sensor exhibits a relatively fast response (response time of 116 s) to 20 parts per million NO<sub>2</sub> with a response of 4.92% at room temperature at zero bias voltage and 2 V source–drain bias voltage. Moreover, characteristics of our 3D Ag NP/rGO FET sensors, e.g. response, response and recovery times, have been demonstrated to be tuned by adjusting the applied source–drain and gate biases. Compared to the 2D geometry, our 3D geometry occupies less device area, but with the same sensing area. This study provides a new way to optimize sensing device performance, and promotes its development for miniaturized and integrated gas-sensing applications for indoor health and safety detection, outdoor environmental monitoring, industrial pollution monitoring and beyond.

**Treatment type:** New development (used where a claim of novelty, in the patent sense, might be made), Practical (indicates that the document is meant to be of practical use, and so is likely to be of use to engineers and designers)

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**Controlled terms:**

chemical variables measurement  
field effect transistors  
gas sensors  
graphene compounds  
microfabrication  
microsensors  
nanofabrication  
nanoparticles  
nanosensors  
nitrogen compounds  
silver

**Uncontrolled terms:**

industrial pollution monitoring, outdoor environmental monitoring, integrated gas-sensing applications, 2D geometry, 3D geometry, 2D NP-rGO FET sensors, 3D NP-rGO FET sensors, electrical properties, self-roll-up technique, rGO nanosheets, 3D microtubular FET sensor, three-dimensional microtubular field effect transistor sensor, reduced graphene oxide microtubular field effect transistor sensor, source-drain bias voltage, zero bias voltage, 2D reduced graphene oxide, three-dimensional nanoparticles, voltage 2.0 V, temperature 293.0 K to 298.0 K, time 116.0 s, NO<sub>2</sub>, Ag-CO

**Inspec subject classification:**

A8280T Chemical sensors  
A0670D Sensing and detecting devices  
A0710C Micromechanical and nanomechanical devices and systems  
A8116 Methods of nanofabrication and processing  
B7230L Chemical sensors  
B7230M Microsensors and nanosensors  
B7320T Chemical variables measurement  
B2550N Nanometre-scale semiconductor fabrication technology  
B2560S Other field effect devices  
B2575F Fabrication of MEMS and NEMS devices

**Numerical data indexing:**

Quantity	Value	Unit
time	1.16E+02	s (second)
temperature	2.93E+02 to 2.98E+02	k (kelvin)
voltage	2.0E+00	v (volt)

**Chemical indexing:**

Item	Role
NO <sub>2</sub>	bin
Ag-CO	int

**IPC:**

B81B - Micro-structural devices or systems, e.g. micro-mechanical devices  
B81C1/00 - Manufacture or treatment of devices or systems in or on a substrate  
B82B1/00 - Nano-structures  
B82B3/00 - Manufacture or treatment of nano-structures  
H01L21/02 - Manufacture or treatment of semiconductor devices or of parts thereof  
H01L21/70 - Manufacture or treatment of devices consisting of a plurality of solid state components or integrated circuits formed in or on a common substrate or of specific parts thereof; Manufacture of integrated circuit devices or of specific parts thereof  
H01L29/66 - Types of semiconductor device  
B82Y15/00 - Nano-technology for interacting, sensing or actuating, e.g. quantum dots as markers in protein assays or molecular motors  
B82Y40/00 - Manufacture or treatment of nano-structures  
H01L29/772 - Field-effect transistors

**CPC:**

B81B - Microstructural devices or systems, e.g. Micromechanical devices (piezo-electric, electrostrictive or magnetostrictive elements per se H01L41/00)  
B81C1/00 - Manufacture or treatment of devices or systems in or on a substrate (B81C3/00 takes precedence)  
B82B1/00 - Nanostructures formed by manipulation of individual atoms or molecules, or limited collections of atoms or molecules as discrete units  
B82B3/00 - Manufacture or treatment of nanostructures by manipulation of individual atoms or molecules, or limited collections of atoms or molecules as discrete units  
B82Y15/00 - Nanotechnology for interacting, sensing or actuating, e.g. quantum dots as markers in protein assays or molecular motors  
B82Y40/00 - Manufacture or treatment of nanostructures  
H01L29/66 - Types of semiconductor device {; Multistep manufacturing processes therefor}  
H01L29/772 - Field effect transistors

# Sample record 2

## Obliquity measurement and atmospheric characterisation of the WASP-74 planetary system

**Inspec Accession No:** 20476031

**Document type:** Journal Paper

**Inspec Issue:** 2021-016

**MIN:** BE68-C0014-A141

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**Journal:** Astronomy & Astrophysics, vol. 642, p. A50 (11 pp.)

**Publication Date:** 2020

**Publisher:** EDP Sciences, France

**ISSN:** 0004-6361 (print)

**JIN:** BE68

**CODEN:** AAEJAF

**DOI:** 10.1051/0004-6361/202038703

**Open Access:** Yes

**Language:** English

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**Abstract:** We present new transit observations of the hot Jupiter WASP-74 b ( $T_{\text{eq}} \sim 1860$  K) using the high-resolution spectrograph HARPS-N and the multi-colour simultaneous imager MuSCAT2. We refined the orbital properties of the planet and its host star and measured its obliquity for the first time. The measured sky-projected angle between the stellar spin-axis and the orbital axis of the planet is compatible with an orbit that is well-aligned with the equator of the host star ( $i = 0.77 \pm 0.99$  deg). We are not able to detect any absorption feature of H or any other atomic spectral features in the high-resolution transmission spectra of this source owing to low S/N at the Li cores. Despite previous claims regarding the presence of strong optical absorbers such as TiO and VO gases in the atmosphere of WASP-74 b, new ground-based photometry combined with a reanalysis of previously reported observations from the literature show a slope in the low-resolution transmission spectrum that is steeper than expected from Rayleigh scattering alone.

**Treatment type:** Experimental (used for documents describing an experimental method, observation or result. Includes apparatus for use in experimental work and calculations on experimental results)

**Controlled terms:**

astronomical photometry  
extrasolar planetary atmospheres  
extrasolar planetary motion  
extrasolar planets  
Rayleigh scattering  
stellar atmospheres  
stellar motion  
stellar photometry  
stellar rotation  
stellar spectra  
transits

**Inspec subject classification:**

A9785C Extrasolar planetary motion  
A9785H Extrasolar planetary atmospheres  
A9510G Eclipses, transits and occultations  
A9575D Astronomical photographic and electronic imaging, and photometry  
A9580J Photographic region astronomical observations  
A9710K Stellar rotation  
A9710R Stellar radiation and spectra  
A9710W Stellar space motions (proper motions, radial velocities, and orbits)  
A9710E Stellar atmospheres, radiative transfer, opacity, and line formation

**Uncontrolled terms:** atmospheric characterisation, WASP-74 planetary system, low-resolution transmission spectrum, reported observations, strong optical absorbers, high-resolution transmission spectra, atomic spectral features, absorption feature, orbital axis, stellar spin-axis, measured sky-projected angle, obliquity, host star, orbital properties, multicolour simultaneous imager MuSCAT2, high-resolution spectrograph HARPS-N, hot Jupiter WASP-74 b, transit observations, WASP-74b, TiO, VO, S

**Chemical indexing:**

Item	Role
TiO	bin
VO	bin
S	el

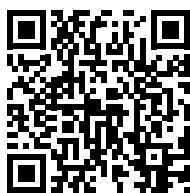
**Astronomical indexing:**

WASP-74b



## Access to Inspec and Inspec Analytics

Inspec and Inspec Analytics are available via a range of vendor platforms including EBSCO Host, Elsevier Engineering Village, OvidSP, ProQuest Dialog and Clarivate Web of Science.



**Speak to your local sales representative to request a demonstration and additional information.**

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