

STN Coffee Lecture 

Meet the Database: TEMA

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 **FIZ Karlsruhe**
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Agenda

1. Content and Coverage
2. Database Features
3. Search Tips

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TEMA Content and Coverage

1. Technology and Management (TEMA) is produced by WTI Frankfurt
2. This database contains references with abstracts, keywords and descriptors on technology and management.
3. TEMA[®] comprises the databases DOMA[®] Mechanical and Plant Engineering, ZDE Electrical Engineering, Electronics and Information Technology, ENTEC Energy Technology, WEMA[®] Materials, TOGA[®] Textile Technology, MEDITEC Medical Engineering, BERG Mining, INFODATA Information Science, TEMotive Electric Mobility, PRINT Printing Technology and BEFO Management and Organisation.

4

What Topics are Covered in TEMA?

Aerospace	Automotive research	Ceramics and plastics
Civil engineering	Electrical engineering	Electronics
Energy	Information technology	Instrumentation
Machinery and plants	Management and organization	Materials, metals, paints
Mechanical engineering	Medical engineering	Mining
Textile engineering	Transportation	

5

Where does TEMA's information come from?

- Over 6.3M records including bibliographic information, indexing, and an abstract in English, German, or both
- Drawn from German and international scientific and technical literature like journals, conference proceedings, reports, dissertations, as well as non-conventional literature. Other data sources include: Books, trade publications, reviews, conference proceedings, reports, patents, and standards.
- Coverage from 1968-present
- Updated weekly



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1. Content and Coverage
2. Database Features
3. Search Tips

Database Features in STNext

- Classification Codes
 - Available in English (/CC) and German (/CCDE)
 - Searchable both by code and by text
- Controlled terms – value added data
 - Available in English (/CT) and German (/CTDE)



8

Classification codes and Controlled Terms

=> S 3KXZ BIOMEDICAL/BIOCHEMICAL PROPERTIES
OF MATERIALS

=> E BIOCERAMICS/CT

 E3 2058 --> BIOCERAMICS/CT

=> S BIOCERAMICS/CT OR BIOKERAMIK/CTDE

L2 (2058)BIOCERAMICS/CT (2520)BIOKERAMIK/CTDE

2592 BIOCERAMICS/CT OR BIOKERAMIK/CTDE

9

Database features on STNext

- Numeric Property Searching (NPS) is enabled in TEMA, and physical properties field (/PHP) is available

```
=> S OSCILLAT?/BI (S) 1- 3/FRE
```

```
199196 OSCILLAT?/BI
```

```
11628 1 HZ - 3 HZ /FRE
```

```
L1 707 OSCILLAT?/BI (S) 1 HZ - 3 HZ /FRE
```

Database features on STNext

L1 ANSWER 1 OF 707 TEMA COPYRIGHT 2021 WTI-FRANKFURT-DIGITAL GMBH on STN.
AB . . . and specificities of operation of superconducting elements and circuits for the detection and study of terahertz radiation from cryogenic integrated **oscillators** are presented. The signal of an integral terahertz **oscillator** was detected, its power was estimated, and the radiation spectrum was measured with a resolution of about **1** Hz. The synchronization of a superconducting **oscillator** at any frequency in the range 250–750 GHz with a spectral quality higher than 50% has been realized, and the. . .

199196 OSCILLAT?/BI

11628 1 HZ - 3 HZ /FRE

L1 707 OSCILLAT?/BI (S) 1 HZ - 3 HZ /FRE

Database features on STNext

L1 ANSWER 1 OF 707 TEMA COPYRIGHT 2021 WTI-FRANKFURT-DIGITAL GMBH on STN.

AB L1 ANSWER 4 OF 707 TEMA COPYRIGHT 2021 WTI-FRANKFURT-DIGITAL GMBH on STN.

AB . . . the radiation pressure of light. By modulating a low power visible laser (from 100 to 600 mW) at low frequencies (**below** 100 Hz), we observe a deformation of the film interfaces. The phenomenon, that is independent of the laser wavelength, is . . . resonant frequency and reaches 0.68 μm . The deformation is reversible and varies linearly with the optical power. Using the damped **oscillator** model, we show that the resonant frequency depends on the surface tension of the film.

199196 OSCILLAT?/BI

11628 1 HZ - 3 HZ /FRE

L1 707 OSCILLAT?/BI (S) 1 HZ - 3 HZ /FRE

Database features on STNext

L1 ANSWER 1 OF 707 TEMA COPYRIGHT 2021 WTI-FRANKFURT-DIGITAL GMBH on STN.

AB L1 ANSWER 4 OF 707 TEMA COPYRIGHT 2021 WTI-FRANKFURT-DIGITAL GMBH on STN.

AB . . . the radiation pressure of light. By modulating a low power

L1 ANSWER 6 OF 707 TEMA COPYRIGHT 2021 WTI-FRANKFURT-DIGITAL GMBH on STN.

AB . . . the damping attracted increasing interest in the last decades. Particularly, the exploitation of pseudo-elastic properties to damp or prevent the **oscillations** of physical systems has received wide attention in civil engineering. In this context and in other practical applications, intrinsic damping. . . been considered; tests have been accomplished at a solicitation strain in the order of 10^{-4} and at four frequencies (0.5, **1**, 10 and 50 Hz). Results allow a broad overview of

19

11628 1 HZ - 3 HZ /FRE

L1 707 OSCILLAT?/BI (S) 1 HZ - 3 HZ /FRE

Database features on STNext

L1 ANSWER 1 OF 707 TEMA COPYRIGHT 2021 WTI-FRANKFURT-DIGITAL GMBH on STN.

AB L1 ANSWER 4 OF 707 TEMA COPYRIGHT 2021 WTI-FRANKFURT-DIGITAL GMBH on STN.

AB . . . the radiation pressure of light. By modulating a low power

L1 ANSWER 6 OF 707 TEMA COPYRIGHT 2021 WTI-FRANKFURT-DIGITAL GMBH on STN.

AB L1 ANSWER 8 OF 707 TEMA COPYRIGHT 2021 WTI-FRANKFURT-DIGITAL GMBH on STN.

AB . . . monitoring human health in real-time. REWOD has been demonstrated to effectively generate electrical current at a low frequency range (< 3 Hz), which is the frequency range for various human activities such as walking, running, etc. However, the current generated from. . . AC is generated using a 50 μ L droplet of 0.5M NaCl electrolyte and 2.5 mm of electrode displacement from an **oscillation** frequency range of 1-3 Hz. A seven-stage rectifier using Schottky diodes having a forward voltage drop of 135-240 mV and. . .

19

11628 1

L1 707 0

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Tips for searching TEMA on STNext

- Use EXPAND in the /PHP field to see all available physical properties. Searches with physical property field codes are carried out in the /TI and/AB fields
- Basic Index (/BI) includes single words from TI, AB, CT, CTDE, ST, and UT fields
- Other common searchable fields include AU, CS, DT, SO
- Most search fields available for ANALYZE and SELECT

=> E A/PHP 25

**** START OF FIELD ****

E3	0	--> A/PHP
E4	6663	AMOUNT OF SUBSTANCE/PHP
E5	6663	AOS/PHP
E6	3679	AREA/PHP
E7	11	BIR/PHP
E8	107	BIT/PHP
E9	11	BIT RATE/PHP
E10	582	CAP/PHP
E11	582	CAPACITANCE/PHP
E12	12	CDN/PHP
E13	37618	CMOL/PHP
E14	5484	CON/PHP

16

Tips for searching TEMA on STNext

- TEMA appears in the following clusters, for easy multifile searching:
 - AEROTECH, COMPUTER, CONSTRUCTION, CORPSOURCE, ELECTRICAL, ENGINEERING, MATERIALS, METALS
- Alerts (SDIs) are available on a weekly or monthly basis in TEMA

17

Good Reasons to use TEMA

- Multidisciplinary content including e.g. (bio)materials like bioceramics
- Documents from sources (e.g. many reports and books) not covered in other STN databases
- English and German search terms
- Generally: all databases have different indexing rules

Additional Resources

- TEMA user documentation from STN International
 - <https://www.stn-international.com/en/database-summary-sheets/tema>
- Official TEMA site
 - <https://wti-frankfurt.de/en/products/our-databases/tema>
- Numeric Property Searching documentation
 - <https://www.stn-international.com/en/training-center/documentation/numeric-property-search-stn>

19

Questions? Feedback?



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20