Literature Survey using scopus™
NPTEL Course Module

G. Phanikumar
Department of MME, IIT Madras
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- Once logged in, you can save your searches and search history.
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Login using your Scopus credentials.
Keyword based search

- Choose alternate keywords with “OR” combination
- Choose the fields carefully: Article Title, Abstract, Keywords, Authors, First Author, Source Title, Article Title, Abstract, Keywords, Affiliation (Name, City, Country), Language, ISSN, DOI, References, Conferences, etc.
- Choose the timespan:
  - Published from YYYY/All Years to YYYY/Present
- Pick the Subject Areas as appropriate
- Use advanced search features to construct a search string combining different fields, values and Boolean operators / parentheses.
Looking at the search results

- Date (latest on top) : What is the latest in this area?
- Date (oldest on top) : What are the early publications in this area?
- Cited by (highest on top) : What are the most referred publications in this area?
- Relevance – What publications match the search criteria closest?
- First Author – A to Z / Z to A
- Source Title – Sorted according to the source of the publication
<table>
<thead>
<tr>
<th>Title</th>
<th>Author(s)</th>
<th>Year</th>
<th>Journal</th>
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<td>Mechanical alloying and milling</td>
<td>Suryanarayana, C.</td>
<td>2001</td>
<td>Progress in Material Science</td>
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<td>Nanometre diameter fibres of polymer, produced by electrospinning</td>
<td>Renekar, D.H., Chun, I.</td>
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<td>Polymer</td>
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Collecting the reference items

◊ Under each method of sorting the search results, “select” those you feel are important for your literature survey by “checking the box” against those items.
◊ Click on the button “Save to list” to add these to your list.
◊ “Enter name of a new list” if you wish to create a new name of this list. Else, add them to an existing list by picking it from the drop down menu below.
◊ The number of items added to your list are shown in a box along with a link to “View or manage your saved lists”.
◊ Once you are done collecting, click on the link “View or manage your saved lists” to proceed to the 3 step process of collecting the data.
  ◊ Step 1: Select records (within this Marked List – usually all)
  ◊ Step 2: Select content (choose abstract also, helps in identifying which publications to find the full text of)
  ◊ Step 3: Select destination (choose Save to EndNote online)
Click on the name of the list you just created and added selected publications to.
1. Click here to select all the items
2. Click here to export the selected items
3. Select BibTeX format
4. Choose Citations and abstract information
4. Click on Export button
Save the list and export

✧ Click on the name of the list to view all the items you selected and saved.
✧ Click on the checkbox at the top of the first column of all the items to select all the items.
✧ Click on the link “Export” to open the pop-up dialogue.
✧ Choose “BibTeX” format, “Citations and Abstracts” and click on the button “export” to save the results as a file named “scopus.bib”.
✧ Go to your Downloads folder to rename the file to something meaningful, say, after the name of the list you had in your profile on scopus itself.
abstract={Mechanical alloying (MA) is a solid-state powder processing technique involving repeated welding, fracturing, and rewelding of powder particles in a high-energy ball mill. Originally developed to produce oxide-dispersion strengthened (ODS) nickel- and iron-base superalloys for applications in the aerospace industry, MA has now been shown to be capable of synthesizing a variety of equilibrium and non-equilibrium alloy phases starting from blended elemental or prealloyed powders. The non-equilibrium phases synthesized include supersaturated solid solutions, metastable crystalline and quasicrystalline phases, nanostructures, and amorphous alloys. Recent advances in these areas and also on disordering of ordered intermetallics and mechanochemical synthesis of materials have been critically reviewed after discussing the process and process variables involved in MA. The often vexing problem of powder contamination has been analyzed and methods have been suggested to avoid/minimize it. The present understanding of the modeling of the MA process has also been discussed. The present and potential applications of MA are described. Wherever possible, comparisons have been made on the product phases obtained by MA with those of rapid solidification processing, another non-equilibrium processing technique. © 2001 Elsevier Science Ltd. All rights reserved.},
document_type={Review},source={Scopus},
}

abstract={Amorphous alloys exhibiting a wide supercooled liquid region above 100 K were found to form in a compositional range from 0 to 3%Co, 0 to 15%Ni and 10}
@ARTICLE{Suryanarayana20011,
author={Suryanarayana C.},
title={Mechanical alloying and milling},
journal={Progress in Materials Science},
year={2001},
volume={46},
number={1-2},
pages={1-184},
doi={10.1016/S0079-6425(99)00010-9},
note={cited By 9761},
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affiliation={Department of Metallurgical Eng., Colorado School of Mines, Golden, CO 80401-1887, United States},
abstract={Mechanical alloying (MA) is a solid-state powder processing technique involving repeated welding, fracturing, and re-welding of powder particles in a high-energy ball mill. Originally developed to produce oxide-dispersion strengthened (ODS) nickel- and iron-base superalloys for applications in the aerospace industry, MA has now been shown to be capable of synthesizing a variety of equilibrium and non-equilibrium alloy phases starting from blended elemental or prealloyed powders. The often vexing problem of powder contamination has been analyzed and methods have been suggested to avoid/minimize it. © 2001 Elsevier Science Ltd. All rights reserved.},
document_type={Review},
source={Scopus},
}

@ARTICLE{Zhang199111008,
author={Zhang Tao and Incuc Akihiko and Masumoto Tsuyoshi},
title={Amorphous Zr-Al-TM (TM-Co, Ni, Cu) alloys with significant supercooled liquid region of over 100 K},
document_type={Review},
source={Scopus},
}

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document_type = {Review},
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@ARTICLE{Zhang1991YOS,
author = {Zhang, Teo and Tsuchiyu, Akio and Masumoto, Tetsuji},
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affiliation = {Tohoku Univ., Sendai, Japan},
abstract = {Amorphous alloys exhibiting a wide supercooled liquid region above 100 K were found to form in a compositional range from 0 to 3%Co, 0 to 15%Ni and 10% to 23%Cu in Zr65Al47Si2.5(Cu0.1-x, Ni0.9x)25 system by melt spinning. The temperature span ΔTm (°K) between glass transition temperature (Tg) and crystallization temperature (Tc) reaches as large as 127 K for}
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<td>K. et al.</td>
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<td>Article</td>
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<td>Acta Metallurgica Kurz1986923</td>
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**Article (Inoue1990177)**

Akihisa, I., Tao, Z. & Tsuyoshi, M.
Zr-Al-Ni amorphous alloys with high glass transition temperature and significant supercooled liquid region
*Materials Transactions, JIM, 1990*, 37, 177-183

**Abstract:** Amorphous Zr-Al-Ni alloys exhibiting a wide temperate region of supercooled liquid state and a high reduced glass transition temperature (Tg/Tm) were formed over a composition range from 0 to 37 at% Al and 3 to 67% Ni by melt spinning. The temperature span ΔTx (=Tx - Tg) between Tg and crystallization temperature (Tx) reaches as large as 77 K for Zr60Al15Ni25. The Tg/Tm is also as high as 0.64 in the vicinity of Zr60Al20Ni20 and their Zr-Al-Ni alloys are concluded to have a large glass-forming capacity. The Tx and hardness (Hv) increase with increasing Al and Ni contents in the range of 860 to 860 K and 400 to 720, respectively, and the tensile strength also has a similar compositional dependence in the range of 1350 to 1720 MPa. The compositional effect on Tx and Hv was presumed to originate from the variation of the atomic configuration which reflects the equilibrium compounds, because of the similarity in the compositional dependence among Tx, Hv and the melting temperature of the compounds. The high thermal stability of the
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