

## Quick Reference Guide: Advanced Search

Connect different forms of a single concept with the Boolean search operator **OR**.

Type each concept in a separate row. Connect each row with **AND**.

Use truncation (\*) and type "3D print\*" as a phrase, inside quotation marks, to get results with 3D print, 3D prints, 3D printer, 3D printed and 3D printing.

Click plus (+) to add extra rows.

Your default option for searching is **Select a Field**, which searches all fields in the record. You can also choose to search fields from this extensive list to focus in on specific data.

You can adjust search modes from what's been preset. NOTE: Boolean/Phrase will automatically add **AND** between search terms in single search box if you do not type **OR**.

Tick here to limit results to scholarly peer reviewed journal articles.

Limits let you specify a date range, publication type (like patent, standard, or journal article) or language.

The screenshot shows the EBSCOhost search interface. At the top, the search bar contains "chocolate OR cocoa". Below it, there are two rows of search terms: "AND vicos\* OR texture OR rheolog\*" and "AND '3d print\*'", each with a plus sign button to its right. A dropdown menu for "Select a Field (optional)" is open, showing a list of fields such as "TX All text fields", "AU Author", "ED Editor", etc. The "Search" button is green and located to the right of the search bar. Below the search bar, there are tabs for "Basic Search", "Advanced Search", and "Search History".

Annotations include:

- An arrow pointing to the "OR" operator in the search bar.
- An arrow pointing to the plus sign button next to the second row of search terms.
- An arrow pointing to the "AND" operator between the first and second rows.
- An arrow pointing to the "AND" operator between the second and third rows.
- An arrow pointing to the "3d print\*" search term.
- An arrow pointing to the plus sign button next to the search bar.
- An arrow pointing to the "Select a Field (optional)" dropdown menu.
- An arrow pointing to the "Boolean/Phrase" search mode option.
- An arrow pointing to the "Scholarly (Peer Reviewed) Journals" checkbox.
- An arrow pointing to the "Limit your results" section.

# Search History/Alerts

Your **search history** appears above your search results. You can see your terms, the mode of the search, and actions, including editing your search.

## Search History/Alerts

Print Search History Retrieve Searches Retrieve Alerts Save Searches / Alerts

Select / deselect all Search with AND Search with OR Delete Searches Refresh Search Results

| Search ID# | Search Terms   | Search Options                | Actions                            |
|------------|--|-------------------------------|------------------------------------|
| S1         | (chocolate OR cocoa ) AND ( vicos* OR texture OR rheolog* ) AND "3d print" | Search modes - Boolean/Phrase | View Results (7) View Details Edit |

Click here to set up an automated search alert.

### Create Alert

Search Alert: "( chocolate OR cocoa ) AND ( vicos\* OR texture OR rheolog\* ) AND "3d print" on 2020-06-01 04:40 AM"

E-mail (You must sign in to send e-mail alerts. Sign In)

#### General Settings

Frequency: Once a day

Articles published within the last: One Year

Results format: Brief

Sort results by relevance, date, source or author.

Add results to a folder, create an alert, or grab a permalink.

# Results List

To see the full record, click on the title.

Search Results: 1 - 7 of 7

### 1. Texture-modified 3D printed dark chocolate: sensory evaluation and consumer perception study.

By: Mantihal, S., Sangeeta Prakash, Bhesh Bhandari. *Journal of Texture Studies*. Vol. 50 (5), October 2019. 386-399.

This study aimed to assess the preferences and perceptions of **texture-modified three-dimensional (3D) printed chocolate** through three measures: two tasting tests and one survey. In the first test...

**Subjects:** APPEARANCE; **CHOCOLATE PRODUCTS**; CONSUMER PERCEPTION; CONSUMER PREFERENCE; CONSUMER RESPONSE; DARK **CHOCOLATE**; HARDNESS; MECHANICAL PROPERTIES; PROCESSING; SENSORY PROPERTIES; **TEXTURE**; **Cocoa, chocolate** and sugar confectionery products

Linked Full Text PlumX Metrics

Click on the folder to save, email or print multiple items.

### 2. Effect of additives on thermal, rheological and tribological properties of 3D printed dark chocolate.

By: Mantihal, S., Sangeeta Prakash, Godoi, F. C., Bhesh Bhandari. *Food Research International*. Vol. 119, May 2019. 161-169.

Food additives can be used to enhance processability and/or nutritional properties of food. In this study...

**Subjects:** **CHOCOLATE PRODUCTS**; DARK **CHOCOLATE**; DRIED FOODS; EXTRUSION; INSTANT FOODS; TEMPERATURE; THERMOPHYSICAL PROPERTIES; **Cocoa, chocolate** and sugar confectionery products

Linked Full Text PlumX Metrics

Textural modification of 3D printed dark chocolate by varying internal infill structure.

**Authors:** Mantihal, S.; Sangeeta Prakash; Bhesh Bhandari

**Source:** Food Research International

**Date:** 2019

**Publication Type:** Academic Journal

**Subjects:** **CHOCOLATE POWDERS**; **CHOCOLATE PRODUCTS**; DARK **CHOCOLATE**; DENSITY; DRIED FOODS; EXTRUSION; INSTANT FOODS; SATURATED FATTY ACIDS; STABILITY; STEARIC ACID; **TEXTURE**; **Cocoa, chocolate** and sugar confectionery products

Linked Full Text Add to folder

For a handy quick view of a record, click this icon.

### 3. Textural modification of 3D printed dark chocolate by varying internal infill structure.

By: Mantihal, S., Sangeeta Prakash, Bhesh Bhandari. *Food Research International*. Vol. 121, July 2020.

This study aimed to create an intricate internal structure of **3D printed chocolate** by varying the infill...

**Subjects:** **CHOCOLATE POWDERS**; **CHOCOLATE PRODUCTS**; DARK **CHOCOLATE**; DENSITY; STEARIC ACID; STEROLS; STRUCTURE; **TEXTURE**; **Cocoa, chocolate** and sugar confectionery products

Linked Full Text PlumX Metrics

### Refine Results

Current Search: Boolean/Phrase: ( chocolate OR cocoa ) AND ( vicos\* OR texture OR rheolog\* ) AND ...

Limit To

- Linked Full Text
- Scholarly (Peer Reviewed) Journals

2016 Publication Date 2019

Show More

Source Types

- All Results
- Academic Journals (7)

Refine your results with limits in this column.

# Detailed Record

## Texture-modified 3D printed dark chocolate: sensory evaluation and consumer perception study.

**Authors:** Mantihal, S.; Sangeeta Prakash; Bhesh Bhandari

**Contact Information:** Correspondence address, Bhesh Bhandari, Department of Food Science, School of Agriculture and Food Sciences, The University of Queensland, St Lucia, Qld. 4072, Australia. E-mail b.bhandari@uq.edu.au

**Source:** *Journal of Texture Studies*, Vol. 50 (5), October 2019. 386-399.

**Peer Reviewed:** Yes

**Date of Publication:** October 2019

**ISSN:** 1745-4603

**Language:** Text: English

**Article Type:** Journal Article

**Abstract:** This study aimed to assess the preferences and perceptions of **texture-modified three-dimensional (3D) printed chocolate** through three measures: two tasting tests and one survey. In the first test, 30 semitrained panelists ranked their overall preference from among the three samples of **chocolate printed** in a honeycomb pattern with infill percentages (IPs) of 25, 50, and 100%. The panelists ranked the samples based on appearance and hardness. In the second test, the same panelists nominated one preference between a **3D printed** sample (100% IP) and a cast commercial **chocolate** sample. Friedman test indicated that there was no significant difference in overall preferences for hardness although the panelists significantly preferred the appearance of samples with 25 and 50% over the 100% infill. Furthermore, there was no significant difference in preference between the cast and 100% infill samples. The **texture** data of the **chocolate** samples showed that a higher force was required to break the **chocolate** samples as the IP increased from 25% (20.4±1.1N) to 100% (54.4±1.5N). Also, the **3D printed chocolate** (printed in 100% IP) was found to be less hard than that of casted **chocolate**. In the survey of consumer perceptions, a total of 244 participated and assessed the samples for their intricate design and novel technology concept through a questionnaire. While there was a general awareness of **3D printing** technology among these participants, many were impressed with the application of **3D printing to chocolate**, as this was the first time they had seen this. The results obtained from the sensory tests and consumer survey provided a useful insight into consumers' perception of **3D food printing** and the **3D** products design. This awareness will be beneficial to promote this technology in the food industry. © 2019 Wiley Periodicals, Inc.

**Keywords:** APPEARANCE; **CHOCOLATE PRODUCTS**; CONSUMER PERCEPTION; CONSUMER PREFERENCE; CONSUMER RESPONSE; DARK **CHOCOLATE**; HARDNESS; MECHANICAL PROPERTIES; PROCESSING; SENSORY PROPERTIES; **TEXTURE**

**Category Codes:** Section Code: **Cocoa, chocolate** and sugar confectionery products  
Subscription Code: **Cocoa, chocolate** and **cocoa** butter

**Update Date:** 21 Nov 2019

**Accession Number:** 2020-03-Ka0125

**DOI:** 10.1111/jxts.12472

**Tools:** Google Drive, Add to folder, Print, E-mail, Save, Cite, Export, Create Note, Permalink

Open relevant records to see where your terms appear, and to find additional terms to adjust and improve your search.

Explore options for saving and managing relevant results with this list of tools.