Droplet impact dynamics and icing characteristics on rationally microengineered superhydrophobic surfaces

Research Data Summary

List and describe all datasets or research materials that you plan to generate/collect or reuse during your research project. For each dataset or data type (observational, experimental etc.), provide a short name & description (sufficient for yourself to know what data it is about), indicate whether the data are newly generated/collected or reused, digital or physical, also indicate the type of the data (the kind of content), its technical format (file extension), and an estimate of the upper limit of the volume of the data.

Dataset name / ID	Description	New or reuse	Digital or Physical data	Data Type	File format	Data volume	Physical volume
		*Indicate: **N**(ew data) or **E**(xisting data)*	Indicate: **D**(igital) or **P**(hysical)	Indicate: **A**udiovisual **I**mages **S**ound **N**umerical **T**extual **M**odel **SO**ftware Other (specify)		Indicate: <1GB <100GB <1TB <5TB >5TB NA	
IMG_Side_surf#_test#	Datasets of images taken for surface #. The test# is specified in the log file	NEW	D	A	.png	<1GB	
IMG_top_surf#_test#	Datasets of images taken for surface #. The test# is specified in the log file	NEW	D	A	.png	<1GB	
IMG_temp_surf#_test#	Datasets of images taken for surface #. The test# is specified in the log file	NEW	D	A	.png	<1GB	
Temp_surf#_test#	Thermocouples temperature of surface #. The test# is specified in the log file	NEW	D	T	.txt	<1GB	

If you reuse existing data, please specify the source, preferably by using a persistent identifier (e.g. DOI, Handle, URL etc.) per dataset or data type:

No reuse of data

Are there any ethical issues concerning the creation and/or use of the data (e.g. experiments on humans or animals, dual use)? If so, refer to specific datasets or data types when appropriate and provide the relevant ethical approval number.

- No

Will you process personal data? If so, please refer to specific datasets or data types when appropriate and provide the KU Leuven or UZ Leuven privacy register number (G or S number).

- No

Does your work have potential for commercial valorization (e.g. tech transfer, for example spin-offs, commercial exploitation, …)? If so, please comment per dataset or data type where appropriate.

- No

Do existing 3rd party agreements restrict exploitation or dissemination of the data you (re)use (e.g. Material or Data transfer agreements, Research collaboration agreements)? If so, please explain in the comment section to what data they relate and what restrictions are in place.

- No

Are there any other legal issues, such as intellectual property rights and ownership, to be managed related to the data you (re)use? If so, please explain in the comment section to what data they relate and which restrictions will be asserted.

- No

Documentation and Metadata

Clearly describe what approach will be followed to capture the accompanying information necessary to keep data understandable and usable, for yourself and others, now and in the future (e.g. in terms of documentation levels and types required, procedures used, Electronic Lab Notebooks, README.txt files, codebook.tsv etc. where this information is recorded).

A logfile will contain the text matrix, including test condition, calibration factors and comments on each specific test

Will a metadata standard be used to make it easier to find and reuse the data?
If so, please specify which metadata standard will be used.

If not, please specify which metadata will be created to make the data easier to find and reuse.

- No

Data Storage & Back-up during the Research Project

Where will the data be stored?

- Large Volume Storage
- OneDrive (KU Leuven)

smb://set-n-me-tme1.set.l-zone.kuleuven.be/DataStorage/TME-DATA

How will the data be backed up?

- Standard back-up provided by KU Leuven ICTS for my storage solution

Is there currently sufficient storage & backup capacity during the project?

If no or insufficient storage or backup capacities are available, explain how this will be taken care of.

- Yes

How will you ensure that the data are securely stored and not accessed or modified by unauthorized persons?

smb://set-n-me-tme1.set.l-zone.kuleuven.be/DataStorage/TME-DATA has a restricted access

What are the expected costs for data storage and backup during the research project? How will these costs be covered?

No additional costs are expected

Data Preservation after the end of the Research Project

Which data will be retained for 10 years (or longer, in agreement with other retention policies that are applicable) after the end of the project?

In case some data cannot be preserved, clearly state the reasons for this (e.g. legal or contractual restrictions, storage/budget issues, institutional policies...).

- All data will be preserved for 10 years according to KU Leuven RDM policy

Where will these data be archived (stored and curated for the long-term)?

- Large Volume Storage (longterm for large volumes)
- Other (specify below)

smb://set-n-me-tme1.set.l-zone.kuleuven.be/DataStorage/TME-DATA

What are the expected costs for data preservation during the expected retention period? How will these costs be covered?

5000 euro for the purchase of additional hard disks

Data Sharing and Reuse

Will the data (or part of the data) be made available for reuse after/during the project?
Please explain per dataset or data type which data will be made available.

- Yes, as open data

The data, if accepted, will be shared via publication in "Data in Brief"

If access is restricted, please specify who will be able to access the data and under what conditions.

NA

Are there any factors that restrict or prevent the sharing of (some of) the data (e.g. as defined in an agreement with a 3rd party, legal restrictions)?

Please explain per dataset or data type where appropriate.

- No

NA

Where will the data be made available?

If already known, please provide a repository per dataset or data type.

- KU Leuven RDR (Research Data Repository)
- Other data repository (specify below)

Journal repository "data in Brief"

When will the data be made available?

- Upon publication of research results

NA

Which data usage licenses are you going to provide?

If none, please explain why.

- Other (specify below)

to be discussed

Do you intend to add a persistent identifier (PID) to your dataset(s), e.g. a DOI or accession number? If already available, please provide it here.

- Yes, a PID will be added upon deposit in a data repository

Data will be archived in KU Leuven's RDR repository which assigns a unique persistent identifier (DOI) to the deposited data. When needed, these identifiers will be provided in the related publication. All authors involved in the project will also be linked to their respective ORCID IDs.

What are the expected costs for data sharing? How will these costs be covered?

No Costs

Responsibilities

Who will manage data documentation and metadata during the research project?

The data management will be performed by the project leader, Prof. Vetrano

Who will manage data storage and backup during the research project?

Storage: Researchers working on the project
Backup: Automatic backup

Who will manage data preservation and sharing?

Prof. Vetrano

Who will update and implement this DMP?

Prof. vetrano

Created using DMPonline.be. Last modified 20 December 2024

5 of 5