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- Machinery, equipment, and maintenance
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TI

**Statistical models for concrete containing wood chipping as partial replacement to fine aggregate**

AU

Mohammed, Bashar S; Abdullahi, M ; Hoong, C.K. **Construction and Building Materials** 55 (Mar 31, 2014): 13-19.

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AB

**Abstract (summary)** [Translate](#)

The properties of concrete containing wood chippings as partial replacement to fine aggregate are presented in this paper. Wood chipping was treated by water before mixing to prevent it from soaking the water meant for cement hydration. Fifteen trial mixes were prepared and cast using three water-cement ratios (0.37, 0.41 and 0.57) at different replacement levels of wood chippings. Fresh concrete properties tested included slump, unit weight and air content. Hardened concrete properties tested included compressive strength, splitting tensile strength, flexural strength, modulus of elasticity, rebound hammer (RH) and ultrasonic pulse velocity (UPV). Several statistical models were developed to show the relationships between measured responses and variables and among measured responses. These models were validated using various model statistics. Test results show that disposal of wood chipping in concrete is feasible and appropriate. These models are providing a design mix aid of concrete containing wood chipping as partial replacement of fine aggregate. © 2014 Elsevier Ltd. All rights reserved.

**Indexing (details)**

Cite

SU

**Subject**  
Chipping;  
Compression Strength;  
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Water Treatment

IF

**Identifier (keyword)**  
Concrete, Fresh properties, Hardened properties, Rebound number, UPV, Wood chipping; Fresh properties, Hardened properties, Rebound number, UPV, Wood chipping

TI

**Title**  
Statistical models for concrete containing wood chipping as partial replacement to fine aggregate

AU

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<b>UD</b>	<b>First available</b>	2014-02-17
	<b>Updates</b>	2014-02-17
	<b>Database</b>	PAPERCHEM (1967 - current)

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Abstract present	ABANY	"rebound hammer" and abany(yes)	Add: <i>AND ABANY(YES)</i> to a query to limit retrieval to records with abstracts.
Accession number	AN	an(20140617280747) an(ab3800287)	A unique document identification number assigned by the information provider.
All fields	ALL	all("fine aggregate")	Searches all fields. Use proximity and/or Boolean operators to narrow search results.
All fields	--	"fine aggregate"	Searches all fields. Use proximity and/or Boolean operators to narrow search results.
Assignee	AP	ap(xerox) ap("riso kagaku")	Patent assignees; could include patent applicant if provided.
Author <sup>1</sup>	AU	au("hoong, c k")	Also searchable by the Look Up Citation tool.
First author	FAU	fau("mohammed bashar s")	Use FAU to find only the first author of a document. Additional authors will not be searched. Displayed within Author.
Author affiliation	AF	af("civil engineering" and malaysia)	Includes data when available, such as department, organization, address, city, state, country, author email, etc.
Classification (patent)	PAC	pac(27/2)	Searches both US and IPC patent classifications.
CODEN	CODEN	coden(cbume)	
Conference country	CCNT	ccnt("new zealand")	Also searchable with CF.
Conference start date	ESDT	esdt(2011-01-26)	Event Start date also searchable with CDT. All conference information searchable with CF.
Conference end date	EVDT	evdt(2011-01-27)	Also searchable with CF.

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Conference information	CF	cf(papercon and 2010)	Searches all conference information.
Conference location	CG	cg("san diego")	Also searchable with CF.
Conference number / type	CT	ct(84571)	Also searchable with CF.
Conference sponsor	CS	cs(spie) cs(geosciences)	Also searchable with CF.
Conference title	CFTI	cfti(papercon)	Also searchable with CF.
Corporate/institutional author	CA	ca("georgia pacific")	
Copyright	CY	cy(2014)	
Date created	DCRE	dcre(20140210) dcre(<20101231)	The date on which the information provider created the record.
Document feature	DF	df(tab) df(ref)	Numbers of tables, references, figures, etc.
Document status	DSTAT	dstat(new) dstat(revised)	
Document title	TI	ti("statistical models" N/3 "concrete containing wood")	Includes alternate title. Does not include Publication title (PUB).
Title only	TIO	tio(forest)	Searches only the Title, not Alternate title.
Alternate title	OTI	oti("peuplement forestier")	Usually an original language title, when the English title is in Document title. Field code TI also searches the Alternate title.
Document type	DTYPE	dtype("article")	
DOI	DOI	doi(10.1016/j.conbuildmat.2014.01.021)	Digital object identifier
First available	FAV	fav(2014-02-17)	Date on which a record was first loaded on ProQuest Dialog. May have been subsequently updated.
From database <sup>2</sup>	FDB	"casting techniques" AND fdb(paperchem) "casting techniques" AND fdb(1008450)	Useful in multi-file searches to isolate records from a single file.* FDB cannot be searched on its own; specify at least one search term then AND it with FDB.
Identifier (keyword)	IF	if("hardened properties")	Keywords (uncontrolled vocabulary terms). Also searchable using SU. Search also contains terms from throughout the document which are calculated to be relevant.
ISBN	ISBN	isbn(9781424495665)	

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Field name	Field code	Example	Description and Notes
ISSN	ISSN	issn(0950-0618) issn(09500618)	
Issue	ISS	iss(4)	Also searchable by the Look Up Citation tool.
Journal title	JN	jn("journal of nanoscience and nanotechnology")	Displayed in Publication title. Look-Up list available under Publication title.
Language	LA	la(english)	The language in which the document was originally published.
Language of abstract	SL	sl(english)	Summary language
Notes	NT	nt("paperchem volume 38")	Journal announcement (present in some older records)
Page count	PCT	pct(2)	Number of printed pages, when supplied
Pagination	PG	pg(13-19)	The start page is searchable on the Look Up Citation tool.
Start page	PAGE	page(13)	First page number – displayed within Pagination. Searchable on the Look Up Citation tool.
Patent assignee	AP	ap(xerox) ap("riso kagaku")	Patent assignees; could include patent applicant if provided.
Patent classification	PAC	pac(27/2)	Searches both US and IPC patent classifications.
Patent information	PAT	pat(xerox) pat(2711680)	Searches all patent information, except classification.
Patent publication number	PN	pn(2711680)	Displayed within Patent information.
Publication date	PD	pd(20140331) pd(>=201210) pd(20090501-20090731)	Also searchable by the Look Up Citation tool.
Publication title <sup>1</sup>	PUB	pub(construction and building materials)	Includes all Publication names, including conference titles. Journal names also searchable using JN.
Publication type	PSTYPE	pstype(journal)	Preferred search uses Document type (DTYPE).
Publication year	YR	yr(2014)	Single year or a range of years may be searched. Displayed within Publication date.
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Source details	SRC	src(avail*)	Includes Publication Title, Volume, Issue, Publication Date, Pagination, and similar items. Also searchable by the Look Up Citation tool. Displays as individual items, or as Source details in pre-1990 records.
Subject <sup>1</sup>	SU	su("tensile strength")	Contains descriptors from controlled vocabulary. Also includes uncontrolled terms displayed as Identifiers (keywords); these are displayed separately.
Supplier identifier		372244844	Alternative reference to a record given by the information provider. Searching using SID is being developed, so search without SID if necessary.
Title	TI	ti("forest settlement")	Includes Alternate title. Does not include Publication title (PUB).

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