Supplementary Materials

Table S3. Methodological appraisal traceability matrix for the retained evidence registry

This matrix documents which appraisal domains can be described from the available sources. No methodological-quality judgment is inferred from title or abstract metadata. "N/A-R" means that the domain cannot be assessed from the available record information and requires source-level verification. For R0218, R0241 and R0433, publisher abstract checks establish only the target salt and material system, while remaining appraisal domains require source-level confirmation. For R0697, the original report was checked and descriptive study details are recorded below; these do not constitute a formal risk-of-bias rating. Additional publisher abstract checks establish salt involvement for R0065, R0075, R0485, R0671, R0888, R0909, R1524 and R1545; they are not complete full-text methodological appraisals. Seven ineligible records were removed from this matrix in parallel with Table S1; R0213 was reassigned to Level A on publisher-abstract evidence of a WWCB application.

Record / study	Directness	S1 evidence basis	Raw material / system	Accelerator / dose	Control	Curing / formulation	Replication / statistics	Test / outcomes	Overall appraisal status
R0065 — Islam, Md. Shafiqul (2013)	B	$CaCl_2$ tested alone and with sodium hydrogen carbonate against untreated boards; original journal abstract verified (Level B). Other appraisal domains are not established by this source check.	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0626 — Castro, Vinicius (2014)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0303 — Bufalino, Lina (2023)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0621 — Yel, Husnu (2022) (2022)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1634 — Tas, Hasan Huseyin (2021)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information

		report not available in supplied files							
R0457 — Yel, Husnu (2020)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0194 — Vyacheslav Z.A. (2019)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0131 — Sanaev V.G. (2016)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0671 — Wang, Lei (2016)	B	Publisher institution abstract reports 2% $CaCl_2$ used to improve wood–cement compatibility in particleboards (Level B). Other appraisal domains are not established by this source check.	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0217 — de Castro V.G. (2015)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0551 — Moghadam, Sedigheh Kamali (2014)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0508 — Fabiyi J.S. (2013) (2013)	B	Near-direct lignocellulosic	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available

		cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files							record-level information
R0241 — Ashori, Alireza (2012)	B	Publisher abstract checked: $CaCl_2$ identified as an experimental variable in a poplar-strand cement composite (Level B); full methodological appraisal not completed.	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0159 — Fan, Mizi (2012)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0662 — Pereira, C. (2012)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0425 — Sotannde, Olufemi A. (2012)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0024 — Cheumani, Y. A. M. (2011)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0596 — Mendes, Lourival Marin (2011)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information

		in supplied files							
R0218 — Ashori, Alireza (2011)	A	Publisher abstract checked: $CaCl_2$ identified as an experimental variable in a wood-wool cement board study (Level A); full methodological appraisal not completed.	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0235 — De Lima A.J.M. (2010)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0237 — Okino E.Y.A. (2004)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0348 — Olorunnisola A.O. (2002)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0226 — Wei Y.M. (2000)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0056 — Lee Andy W.C. (1989)	A	Direct WWCB evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0362 — Lee Andy W.C. (1986)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information

		in supplied files							
R0216 — Miranda de Lima, Adauto Jose (2019)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0075 — de Castro, Vinicius Gomes (2019)	B	Original journal abstract identifies $CaCl_2$, $MgCl_2$ and hydrated lime as tested additives in wood–cement composites (Level B). Other appraisal domains are not established by this source check.	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0485 — Iwakiri S. (2017)	B	Original journal article identifies $CaCl_2$ and sodium silicate as hardening agents for wood–cement panels (Level B). Other appraisal domains are not established by this source check.	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0433 — Matoski, Adalberto (2013)	B	Original journal abstract checked: $CaCl_2$, $MgCl_2$, aluminium sulfate and sodium silicate were investigated; calcium formate was not tested (Level B). Full methodological appraisal not completed.	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0022 — Nasser R.A. (2010)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0633 — Olorunnisola, Abel O. (2008) (2008)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information

		metadata; full report not available in supplied files							
R0092 — Chang, Feng-Cheng (2008)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0123 — Pereira, Catarina (2006)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0108 — Sauvat N. (1999)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0501 — Tas, Hasan Huseyin (2021) (2021)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0497 — Mendes R.F. (2017)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0674 — Nasser, Ramadan A. (2016)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1652 — Munoz, H. J. (2015)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information

		metadata; full report not available in supplied files							
R0586 — de Sa, Vania Aparecida (2012)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0320 — Ferraz J.M. (2011)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0394 — de Araujo, Priscila C. (2011)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0654 — Beraldo, Antonio L. (2009)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0499 — Rocha Almeida R. (2002)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0233 — Yel, Husnu (2026)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0215 — Arpaci, Emrecan (2026)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information

		metadata; full report not available in supplied files							
R0169 — Verma, Akshat (2026)	A	Direct WWCB evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0149 — Ponga, Donato Tale (2026)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0195 — Yel, Husnu (2025)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0012 — Schild, Anna (2025)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0005 — Melichar, Tomas (2024)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0206 — Melichar, Tomas (2024)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0026 — El Hamri, Anas (2024)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information

		in supplied files							
R0222 — Narciso, Carolina Rezende Pinto (2023)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0184 — Engone, Jean Gerard Ndong (2022)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0201 — Liu, Ziqiang (2022)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0032 — Brahmia, Fatima Zohra (2020)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0069 — Kochova, K. (2020)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1622 — Baracho, Jr., Expedito (2020)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0210 — Kochova, K. (2020)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information

		in supplied files							
R0140 — de Castro, Vinicius Gomes (2019)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0091 — de Castro, Vinicius Gomes (2019)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1623 — Cechin, Luana (2018)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0001 — Caprai, V. (2018)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0129 — Boadu, Kwadwo Boakye (2018)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0002 — Antwi-Boasiako, Charles (2018)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0213 — de la Gree, G. C. H. Doudart (2018)	A	Publisher abstract identifies waste paper sludge ash in wood-wool cement boards; Level A application directness. No	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information

		target-salt arm established; methodological domains still unassessed.							
R0039 — Malaszkiewicz, Dorota (2018)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0109 — Bezerra H.J.C.L. (2017)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0104 — Bejo L. (2016)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1615 — Diquelou, Youen (2016)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0087 — Quiroga, A. (2016)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1607 — Safin, Ruslan R. (2016)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0200 — Castro, Vinicius (2014)	B	Near-direct lignocellulosic cement-composite	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level

		evidence. Eligible from title/abstract metadata; full report not available in supplied files							information
R1626 — Frybort, Stephan (2012)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1628 — Silva Moreira, Ana Betania (2012)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0232 — Macedo, A. N. (2011)	B	Near-direct lignocellulosic cement-composite evidence. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0697 — Mahzabin, Mst. Sadia (2013)	B	Original report verified: Mahzabin et al. (2013); calcium formate included only in an equal-parts, three-salt mixture.	Kelampayan wood fibre and ordinary Portland cement; wood/cement ratios 50:50, 40:60 and 30:70.	Calcium formate, magnesium chloride and sodium silicate in equal proportions; combined chemical addition 3% of cement mass (approximately 1% each by inference).	Treated wood-fibre–cement composites compared with corresponding untreated composites; no isolated calcium-formate arm.	Water-cured compressive specimens assessed at 7 and 28 days; 28-day flexural specimens under reported moisture conditions.	Original report states 24 treated and 24 untreated 100 mm cubes, with three specimens per group in the reported tests; no formal risk-of-bias assessment inferred.	Density, water absorption, compressive strength (7 and 28 days) and flexural strength (28 days); test standards identified in original report.	Source-level study descriptors verified. Three-salt treatment and limited design reporting prevent attribution of an individual calcium-formate effect; no formal risk-of-bias rating assigned.
R0888 — Oinam, Yanchen (2024)	C	Original publisher abstract identifies calcium chloride and calcium formate as investigated accelerators in wood-free slag-based UHPC (Level C). Other appraisal domains are not established by this source check.	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1520 — Shi, Wei (2026)	C	Targeted calcium-formate cement mechanism.	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level

		Eligible from title/abstract metadata; full report not available in supplied files							information
R1549 — Ben, Xunqin (2022)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1487 — Song, Qingnan (2022)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1769 — Noor-ul-Amin (2013)	C	Targeted CaCl2 hydration/phase-chemistry mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1562 — Heikal M. (2004) (2004)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0944 — Chen, Qianyu (2026)	C	Targeted CaCl2 hydration/phase-chemistry mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1834 — Sharifi, Naser P. (2023)	C	Targeted CaCl2 hydration/phase-chemistry mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information

R0914 — Al Rawashdeh M.A. (2021)	C	Redundant, peripheral, or insufficiently specific for evidence-purpose synthesis. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0909 — Oey, Tandre (2015)	C	Original publisher abstract reports a comparison of $CaCl_2$ and calcium nitrate additions in wood-free cementing formulations (Level C). Other appraisal domains are not established by this source check.	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1461 — Ferraz, Joana M. (2012)	B	Redundant, peripheral, or insufficiently specific for evidence-purpose synthesis. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1354 — Sluijter W.L. (1977)	C	Targeted CaCl2 hydration/phase-chemistry mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1444 — Anon (1977) (1977)	C	Targeted CaCl2 hydration/phase-chemistry mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1987 — Hosseini, Sedigheh (2026)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information

		report not available in supplied files							
R1486 — Ma, Jian (2026)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1515 — Zhou, Zhiyuan (2025)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1541 — Rashad A.M. (2025)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1567 — Kang, Min-Chang (2025)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1511 — Pirvan, Adrian-Alexandru (2025)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1985 — Sulekova, Nikola (2025)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1500 — Ju, Yongjian (2025)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information

		report not available in supplied files							
R1516 — Li, Wan (2025)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1545 — Wang, Yimu (2025)	C	Original publisher abstract reports calcium-formate addition in a tricalcium-silicate hydration study (Level C). Other appraisal domains are not established by this source check.	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1540 — Geng, Chaohui (2025)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1503 — Li, Feiyang (2025)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1509 — Zhou, Zhuo (2025)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1981 — Li, Hainan (2024)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1571 — Geng, Chaohui (2024)	C	Targeted calcium-formate cement mechanism.	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level

		Eligible from title/abstract metadata; full report not available in supplied files							information
R1575 — Rakic, Jelena M. (2024)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1546 — Dahal, Mandip (2023)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1547 — Yang, Zhouzhou (2023)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1514 — Wang, Yimu (2022)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1491 — Lanlan Z. (2022)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1524 — Xu, Yongdong (2022)	C	Original publisher abstract reports investigation of calcium formate in the C_3A–AF–gypsum system (Level C). Other appraisal domains are not established by this source check.	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information

R1578 — Zhang F. (2021)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1555 — Zhou, Zhiyuan (2021)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0864 — Qiao, Chunyu (2019)	C	Targeted CaCl2 hydration/phase-chemistry mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0955 — Hemalatha, T. (2019)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1983 — Jin, Yu (2019)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1569 — Gebler Steven (1983) (1983)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0868 — Sales, Leane P. B. (2026)	C	Targeted CaCl2 hydration/phase-chemistry mechanism. Eligible from title/abstract metadata; full	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information

		report not available in supplied files							
R0926 — Padilla-Encinas, P. (2026)	C	Targeted CaCl2 hydration/phase-chemistry mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1067 — Liu C. (2026)	C	Targeted CaCl2 hydration/phase-chemistry mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R0752 — Zhang, Chaowei (2026)	C	Targeted CaCl2 hydration/phase-chemistry mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1496 — Wang, Yimu (2026)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1568 — Wang, Yimu (2026)	C	Targeted calcium-formate cement mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information
R1798 — Niu, Qianjin (2025)	C	Targeted CaCl2 hydration/phase-chemistry mechanism. Eligible from title/abstract metadata; full report not available in supplied files	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	N/A-R	Not assessable from available record-level information

Note: Table S1 supports evidence-directness and selection-basis auditing, but it does not contain complete study-level extraction for all appraisal domains. Frequencies of methodological limitations or formal low/some/high-concern counts cannot be calculated without reviewing the relevant reports and documenting their domain ratings.