

Annexe A

Tableau 5. Détails des études

Référence	Épisode	Modèle	Date/saison	Contexte	Polluants	Période de collecte	Qualité
Coker et al. 2025 ⁵⁷	Wildfire	Analytical Cross Section	Jul–Oct 2022, May–Sep 2023	British Columbia, Canada Licensed childcare facilities (n = 39), Long term residential care facilities (n = 5)	PM _{2.5}	122 days for 2022, 153 days for 2023	High
Holder et al. 2025 ³⁸	Wildfire	Quasi-experimental	2019–2020	Missoula, Montana, USA Church (n = 2), university (n = 2), office (n = 6), hotel (n = 1), fire station (n = 1), museum (n = 2), fitness centre (n = 7), childcare centre (n = 4), community centre (n = 3)	PM _{2.5}	24-hour average, two fire seasons	High
Lee et al. 2024 ²⁵	Wildfire	Analytical Cross Section	Aug–Oct 2022	British Columbia, Canada Licensed childcare facilities (n = 35)	PM _{2.5} , CO ₂	66 days	High

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Prathibha et al. 2024⁵⁰	Wildfire and RWC	Quasi-experimental	Wildfire (Sep–Oct 2021), RWC (Jan–Mar 2022) (Of note: wildfires were extinguished prior to data collection in the “wildfire” study; the “RWC” study captured open burning of trees felled during a storm)	Hoopa, California, USA Residential detached homes, (n = 8 wildfire smoke study, n = 11 RWC)	PM _{2.5}	5–14 days per condition phase, each phase was sampled consecutively	High
Wheeler et al. 2024⁵¹	Wildfire (prescribed burns)	Quasi-experimental	Mar–2021	Semirural Victoria, Australia Residential detached homes (n = 10), within 5 km of planned prescribed burns	PM _{2.5}	1 to 20 days surrounding a prescribed burn	Moderate
Lunderberg et al. 2023⁵⁸	Wildfire	Analytical Cross Section	2021	USA Residences (n = 3, 977), type not specified	PM _{2.5}	2021	High



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Walker et al. 2023 ³¹	Wildfire	Cohort	July–Oct 2022	Missoula, Montana, USA Residential detached homes (n = 14), multi-level apartment/condo (n = 2), other (n = 4)	PM _{2.5}	117.7 days maximum per house	High
Willis et al. 2023 ⁴⁰	Wildfire	Quasi-experimental	Aug–Oct 2021	Butte, Montana, USA 2 comparable sized rooms in 3 public buildings	PM _{2.5}	10–11 days	High
Burke et al. 2022 ⁵⁹	Wildfire	Analytical Cross Section	2011–2020	USA Residential homes (n = 1, 520)	PM _{2.5}	All available data prior to 2020	High
Ghetu et al. 2022 ¹⁵	Wildfire	Cohort	Aug–Nov, 2018–2020	Washington, Oregon, California, and Idaho, USA Residential detached homes (n = 15)	PAHs	Air sampling period 3–4 weeks through study duration, Aug–Nov, 2018–2020	High
He et al. 2022 ³⁷	Wildfire	Analytical Cross Section	Sep 10–21, 2020	Seattle, Washington, USA Residential detached homes (n = 4), apartment (n = 1), office building (n = 2)	PM _{2.5}	11 days	Moderate
Montrose et al. 2022 ³³	Wildfire	Quasi-experimental	Jan 1–Dec 1, 2020	Idaho, USA Skilled nursing facilities (n = 4)	PM _{2.5}	334 days (1326 days across all facilities, 90 wildfire days, 1159 non-wildfire days)	High

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O'Dell et al. 2022 ⁶⁰	Wildfire	Analytical Cross Section	2020	Western USA Buildings and homes (n = 3175), type not specified	PM _{2.5}	2020	High
Dev et al. 2021 ³⁴	Wildfire	Quasi-experimental	Jun 2015 and Aug 2017	Fairbanks, AK, USA University building, and residential detached houses (n=2)	Size-resolved and mass PM _{0.3-10} concentrations	10 min, 10 replicate measurements per site	High
Liang et al. 2021 ³²	Wildfire	Cross-section	Nov 2018, Aug to Sep 2020	San Francisco, California, USA 1274 buildings analyzed, 1112 (87%) buildings were residential: houses (80%), condominiums or multi-family buildings (13%), and apartments (4%)	PM _{2.5}	61 days	High
May et al. 2021 ⁴¹	Wildfire	Quasi-experimental	Sep 13, 2020	Seattle, Washington, USA Residential detached home (n = 1)	PM _{2.5}	5 hours, 3.5 hours PAC on and 1.5 hours PAC off	Moderate
Mendoza et al. 2021 ⁵⁴	Wildfire	Quasi-experimental	Aug 23–24, 2018	Taylorville, Utah, USA Laboratory and office building	PM _{2.5}	2 days (wildfire period)	High
Wheeler et al. 2021 ⁴²	Wildfire	Quasi-experimental	Aug–Nov, 2019	Port Macquarie, NSW, Australia Library	PM _{2.5}	53 days with PAC on and 41 days with PAC off, 140 hours with PAC on and 609 hours with PAC off analyzed	High

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Xiang et al. 2021 ⁴³	Wildfire	Quasi-experimental	Sep 16–18, 2020	Seattle, Washington, USA Residential detached homes (n = 5 PAC, n = 2 no filtration)	PM _{2.5}	18–24 hours PAC on and 18–24 hours PAC off per house, 71 hours with PAC on and 65.5 hours of PAC off analyzed	High
Stauffer et al. 2020 ⁴⁴	Wildfire	Quasi-experimental	Aug–Sep 2018	Butte, Montana, USA University building	PM _{2.5}	10 hours, 6-day (8:00 am–6:00 pm) and 8-night (8:00 pm–6:00 am) sampling periods completed for a total of n = 48-day hours and n = 64 hours	High
Kaduwela et al. 2019 ²⁴	Wildfire	Quasi-experimental	Oct–Nov, 2018	Albany, California, USA High school	PM number concentrations, CO ₂	7 days prior to fire, 7 days during fire	High
Messier et al. 2019 ⁶¹	Wildfire	Analytical Cross Section	Aug 7–13, 2018	Eugene, Oregon, USA Type NR (n = 6)	PAHs	Air sampled every 24 hours for 7 days	High
Reisen et al. 2019 ⁴⁸	Wildfire and RWC	Quasi-experimental	2013–2015	Yarra Valley and Gippsland, Victoria, Australia Residential detached homes (n = 7)	PM _{2.5}	2–14.5 hour sampling periods	High
Shrestha et al. 2019 ²⁶	Wildfire	Analytical Cross Section	Aug 17–Oct 10, 2016, Jun 28–Sep 12, 2017	Denver, Colorado, USA Residential detached homes (n = 28)	PM _{0.5-2.5} number concentrations, BC, CO, NO ₂	2–7 days	High

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Barn et al. 2008 ³⁶	Wildfire and RWC	RCT	Winter 2004 (RWC), Summer 2004–2005 (wildfire smoke)	RWC: Prince George, British Columbia, Canada; residential detached homes (n = 21) Wildfire smoke: Southern British Columbia, Canada; residential detached homes (n = 17)	PM _{2.5}	48 hours, 24 hours PAC on and 24 hours PAC off	Moderate
Henderson et al. 2005 ⁵²	Wildfire	Quasi-experimental	Oct 2021–Jul 2022	Colorado, USA 4 residential home pairs (n = 8)	PM _{2.5}	24 hours per fire event	Moderate
Tham et al. 2021 ⁴⁵	Haze	Quasi-experimental	Oct 20, 2015	Singapore School building	PM ₁₀ , PM _{2.5} , PM ₁	3 hours	Moderate
Tran et al. 2021 ¹⁹	Haze	Quasi-experimental	Aug–Sep 2019	Singapore Residential apartment	PM _{2.5} , BC, Ions, WSTE	23 days for non-hazy days, 13 days for hazy days, 24-hour averages	High
Sharma et al. 2017 ²²	Haze	Quasi-experimental	Sep–Oct, 2015	Singapore Residential apartment	PM _{2.5}	24 hours, for PAC condition, 12 hours with PAC on and 12 hours with PAC off	High
Cao et al. 2016 ⁴⁶	Haze	Quasi-experimental	Sep 17–25, 2015	Singapore University building	PM _{0.3-0.5} , PM _{0.5-1.0} , and PM _{1.0-2.5}	9 days	High
Chen et al. 2016 ⁶²	Haze	Quasi-experimental	Haze: June 14–29, 2013, Clear sky: Aug 13–26 2013	Singapore University building	Size- and time-resolved PM _{0.01-10} concentrations	14 days (Haze period)	High

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Yang et al. 2024 ⁶³	RWC	Quasi-experimental	Jan 17 - Feb 25, 2022	Fairbanks, Alaska, USA Residential detached home (n=1)	PM _{2.5} , and PM oxidative potential (OP)	24 hours	Moderate
Bravo-Linares et al. 2016 ⁵⁶	RWC	Analytical Cross Section	Winter, 2014–2015	Los Ríos Region, Chile Type NR (n=135)	PM _{2.5} , PAHs	24 hours, 3 to 10 days of sampling	Moderate
Kajbafzadeh et al. 2015 ³⁵	RWC	RCT	Dec 2011–Aug 2012	Vancouver, British Columbia, Canada Residential detached homes (n = 20)	PM _{2.5} , levoglucosan	7 days	Moderate
Brown et al. 2014 ⁶⁴	RWC	Analytical Cross Section	Jan–Feb, 2009–2010	Connecticut, USA Residential detached homes (n = 10)	PM _{0.5, 2.5} number concentrations	Hourly, 3 days of sampling	High
Wheeler et al. 2014 ²⁸	RWC	RCT	Dec 2009–April 2010	Annapolis Valley, Nova Scotia, Canada Residential detached homes (n = 31)	PM, PM _{2.5} , levoglucosan	3 days, 1 day wood burning appliance on, 1 day PAC on, 1 day PAC off per house	High
Allen et al. 2011 ²⁹	RWC	RCT	Nov 2008–Apr 2009,	Smithers, British Columbia, Canada Residential detached homes (n = 25)	PM _{2.5} , levoglucosan	7 days	Moderate

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Allen et al. 2009 ⁵⁵	RWC	Quasi-experimental	Nov 2007–Apr 2008	Smithers and Telkwa, British Columbia, Canada Residential detached homes (n = 13), trailer (n = 2)	PM _{2.5} , levoglucosan	6 days	High
Weaver et al. 2019 ²⁷	Biomass	Analytical Cross Section	Aug–Sep, Year NR	Mirpur, Dhaka, Bangladesh, India NR (n = 44)	PM _{2.5}	24 hours	Moderate
Cristale et al. 2012 ¹⁷	Biomass	Quasi-experimental	Aug 2007, Jan 2008	Araraquara, São Paulo, Brazil Residential detached home (n = 1)	PAHs	8 hours per day, 25 days	Moderate
Artinano et al. 2017 ¹⁸	Landfill fire	Quasi-experimental	May 26 and Jun 3, 2016	Seseña, Toledo, Spain School building	PM ₁ number concentrations, BC, minerals, PAHs	24 hours	High

Abréviations : **CN** : carbone noir; **HAP** : hydrohydrocarbures aromatiques; **MP_{x-y}** : matière particulaire d'un diamètre de x à y µm; **ECR** : essai contrôlé randomisé. À noter que d'autres détails sur la collecte des données et les méthodes d'échantillonnage sont disponibles sur demande.